

# **State of Wisconsin**

## **2003**

### **HIGHWAY SAFETY PERFORMANCE PLAN**

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Governor of Wisconsin

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WISCONSIN -- FFY 2003 PROGRAM EXECUTIVE SUMMARY – 402 FUNDS				
Code	Program Area	FY 03 Funding	Year 2007 Goals	Activities & Strategies
PA	Planning & Administration	\$ 225,000	Efficiency & Effectiveness	Planning, Coordination
OP	Occupant Protection	\$ 665,000	70% belt use	Education, Enforcement, Empowerment, Evaluation
AL	Alcohol Countermeasures	\$ 690,000	1,000 AOD K&A 1,283 Youth K&A	Enforcement, Education
PT	Police Traffic Services	\$ 620,000	5,392 K&A speeding/aggression	Enforcement, Education
TR	Traffic Records	\$ 320,000	Coordinated system	Education, Evaluation
EM	Emergency Medical Response	\$ 217,000	Coordinated system	Education, Empowerment, Evaluation
MC	Motorcycle Safety	\$ 120,000	500 MC K&A	Education, Evaluation
RS	Roadway Safety	\$ 30,000	Integrate engineering with behavior	Education, Empowerment, Evaluation
PS	Pedestrian/Bicycle Safety	\$ 380,000	380 ped K&A 100 bike K&A	Education, Enforcement, Empowerment, Evaluation
CP	Community Programs	\$1,033,000	35 Safe Communities	Education, Empowerment
PT	Large Truck Safety	\$ 20,000	462 K&A	Enforcement, Education
	<b>TOTAL</b>	<b>\$4,320,000</b>		
OTHER FUNDS				
157-Incent.	Safety Belt Incentive Program	\$ 180,000	2 or more Surveys	Evaluation
157 Incent.	Alcohol Traffic Safety	\$100,000	Media Marketing and Evaluation	Education, Evaluation
410-J8	Alcohol Traffic Safety	\$ 854,000	1,000 K&A 1,283 Youth K&A	Education, Enforcement
411-J9	Traffic Records Improvements	\$ 252,500	Coordinated system	Evaluation, Empowerment
2003(b)	Child Passenger Safety	\$ 100,000	Trained CPS Experts	Education
157-Innov	Safety Belt Enforcement	\$1,200,000	70% belt use	Enforcement, Education
164-AL	Alcohol Transfer	\$ 409,950	1,000 K&A 1,283 Youth K&A	Empowerment
164-HE	HES Transfer	\$1,000,000	Highway Spot Improvements	Engineering/Construction
MCSAP	Motor Carrier Safety	\$3,3678,777	Targeted Enforcement	Education, Enforcement, Evaluation
USDOJ	OJJDP Youth Program	\$ 720,000	1,283 Youth K&A	Empowerment, Enforcement
State 461	Planning & Admin	\$ 331,000	Efficiency, Effectiveness	Planning, Coordination
State 461	Safety Policy Analysis	\$ 227,500	Public Policy	Evaluation
State 461	Motorcycle Rider Education	\$ 463,000	Train 5,000	Administration, Education
State 461	Pedestrian/Bicycle Safety	\$ 87,500	380 ped K&A 100 bike K&A	Administration, Education
State 568	Pre-Trial Intervention	\$ 464,700	1,000 K&A	Empowerment
State 531	Safe Ride Home	\$ 75,000	1,000 K&A	Empowerment

# STATE OF WISCONSIN FFY 2003 HIGHWAY SAFETY PERFORMANCE PLAN

## I. INTRODUCTION

This Highway Safety Performance Plan is the State of Wisconsin's action plan for distribution of federal highway safety funds into priority behavioral safety programs during federal fiscal year 2003. It is a performance plan in that it sets measurable goals for each program and activity, and specifies how progress toward these goals will be measured. It addresses the behavioral aspects of highway safety; that is, activities that affect the knowledge, attitudes and behaviors of highway users and safety professionals. Several studies have identified the road user as a sole or contributing factor in between 84 and 94% of all crashes. This plan does not address vehicle or roadway factors that contribute to crashes.

This Year 2003 Highway Safety Plan incorporates the State of Wisconsin's Sec. 402 State and Community Highway Safety Grant Program, the Sec. 410 Alcohol Traffic Safety Plan, the Motor Carrier Safety Assistance Plan (MCSAP), remaining Sec. 164 Alcohol Impaired Driver Transfer projects, Sec. 157 Occupant Protection Incentive Grant projects, Sec. 157 Occupant Protection Innovative Demonstration Grant projects, Sec. 2003(b) Child Passenger Safety Incentive Grant projects and Sec. 411 Traffic Records Improvement Incentive Grant, and it meets the criteria established in 23 US Code Section 401 et seq., and the federal and state regulations governing the distribution of these funds. The plan also incorporates the US Department of Justice Underage Alcohol Enforcement Grant program, and the state-funded motorcycle rider education, pedestrian-bicycle safety, and pre-trial intensive supervision programs.

State Highway Safety Office: The Highway Safety Performance Plan is managed by a unit within the Division of Transportation Investment Management (DTIM) of the Wisconsin Department of Transportation (WisDOT). The WisDOT Bureau of Transportation Safety (BOTS) researches and writes this Plan, administers the State and Community Highway Safety Grant Program, the Alcohol Incentive Grant Program, USDOT safety demonstration grants, USDOT safety set-aside fund programs, the USDOT Office of Juvenile Justice Underage Alcohol Enforcement program, and state-funded programs including the Wisconsin Motorcycle Rider Education Program and the Wisconsin Pedestrian and Bicycle Safety Program. BOTS also coordinates the WisDOT Traffic Safety Council and the Wisconsin Highway Safety Partners (formerly the Safety Management System) and participates as a partner in transportation planning, trauma system and injury control activities, youth activities, alcohol and other drugs activities and law enforcement training activities. The MCSAP program is administered by the Wisconsin State Patrol.

WisDOT: The Wisconsin Department of Transportation (WisDOT) is an umbrella agency containing Wisconsin's State Highway Safety Office and the Wisconsin State Patrol, the Division of Motor Vehicles and other units that plan, construct and maintain state highways and other transportation modes, develop and maintain information systems and perform other transportation-related functions.

WisDOT Strategic Highway Safety Plan: In 1999, the Wisconsin Department of Transportation established its mission, vision, and values and identified transportation safety as a priority area for the agency. In 2000, 160 WisDOT employees and transportation safety partners, including representatives from AAA, the UW, NHTSA, FHWA, AARP, the courts, the media and the legislature, selected specific actions and developed action plans to increase traffic safety.

WisDOT's plan was based on the American Association of State Highway and Transportation Officials (AASHTO) Strategic Highway Safety Plan, which listed 22 recommended safety actions that could save 5,000 to 7,000 lives each year. The actions focused on drivers, vehicles, highways, emergency medical services, highway management, and "special users" -

bicyclists and pedestrians. The AASHTO list was decreased to seven action plans that participants felt were not only important, but could be influenced by actions taken by WisDOT. These items were:

1. *Institute Graduated Driver Licensing.*
2. *Improve the design and operation of intersections.*
3. *Increase seat belt use.*
4. *Increase driver safety awareness.*
5. *Improve data and decision support systems.*
6. *Keep vehicles on the roadway/minimize the consequences of leaving the roadway.*
7. *Reduce impaired driving.*

Taken together, these charters form the policy framework of the WisDOT Strategic Highway Safety Plan. Although a shorter list identifying priority areas was derived from the larger AASHTO list, WisDOT considered that all of the safety actions identified are considered important areas to be addressed by the department in the future.

Other Plans and Scans: This plan incorporates information and direction from recently developed strategic plans and state program assessments. In 2001, the State's Traffic Records Coordinating Committee (TRCC) developed a Year 2002 Traffic Records Strategic Plan for the State of Wisconsin. The plan consisted of a set of priority initiatives for improving traffic records, which are used to inform funding decisions in many state organizations. This plan is under review and the TRCC is developing a set of objectives with associated activities for each of the Year 2003 initiatives, to be published in Winter, 2003.

In January 2001, the State Trauma System Plan was delivered to the Wisconsin Legislature for further action. This plan was one of the recommendations in the 1990 NHTSA EMS Assessment.

In 2001, the State underwent a Motorcycle Safety Program Assessment and an EMS Program Re-Assessment. Recommendations and other portions of these documents are included in the relevant program plans.

## **II. BEHAVIORAL SAFETY MISSION and GOALS**

### **MISSION**

The Bureau of Transportation Safety coordinates a statewide behavioral safety program, making effective use of Highway Safety funds and other resources to save lives and reduce injuries on Wisconsin roads, and provides leadership, innovation and program support in partnership with traffic safety activists, professionals and organizations.

### **STATE GOALS**

Wisconsin's Goals support national goals: NHTSA's goal to decrease all fatalities by 20% by 2010, FMCSA's goal to decrease large truck fatalities by 50% by 2008, and the US DH&HS goals to reduce deaths caused by motor vehicle crashes to 9.0 deaths per 100,000 population and 1 death per 100 million vehicle miles traveled and to reduce nonfatal injuries caused by motor vehicle crashes to 1,000 per 100,000 population by 2010.

Wisconsin's Statewide Goals are general targets; they are not direct measures of the behavioral Highway Safety Program's performance in a given year, and the behavioral Highway Safety Program is not the only factor that influences them. The most significant external factors influencing these measures are the economy, the population (particularly the proportion of the population between the ages of 15-44 and over 65), the number of licensed drivers, the number of miles driven, the types of driving exposure, the weather and lifestyle factors such as patterns of alcohol consumption.

Wisconsin's year 2003, 2005 and 2007 Performance Measures are derived from straight-line projections using Wisconsin Department of Transportation 1989-2001 Crash Files, and population data obtained from the Wisconsin Department of Administration Demographic Services Center and U.S. Census Bureau.

### **PRIMARY BEHAVIORAL SAFETY GOAL**

**To reduce the number of deaths and serious injuries that result from traffic crashes on Wisconsin roadways.**

**Table 00-01**

Primary Performance Measures

**A: Crash Avoidance Measures****Table A1 State Traffic Death Rate***(Deaths per 100 million vehicle miles traveled (VMT) Preliminary VMT data)*

<b>Year</b>	<b>Rate</b>	<b>Deaths /</b>	<b>MVMT</b>
1994 Baseline:	1.40	706 /	50,273
2001 Status	1.33	764 /	57,400
2003 Goal	1.14	709 /	62,081
2005 Goal	1.04	701 /	67,127
2007 Goal	0.94	699 /	74,254

**Table A2 : State Population Traffic Death Rate***(Deaths per 100,000 population)*

<b>Year</b>	<b>Rate</b>	<b>Deaths /</b>	<b>State Population</b>
1994 Baseline:	13.88	706 /	5,083,000
2001 Status	14.24	764 /	5,401,906
2003 Goal	13.01	709 /	5,448,460
2005 Goal	12.48	701 /	5,615,964
2007 Goal	11.97	699 /	5,841,614

**Table A3 : State Population Traffic Death/Injury Rate***(Deaths (K) and Incapacitating (A) Injuries per 100,000 population)*

<b>Year</b>	<b>Rate</b>	<b>K&amp;A Inj</b>	<b>State Population</b>
1994 Baseline:	183.4	9,320 /	5,083,000
2001 Status	122.8	6,588 /	5,401,906
2003 Goal	117.7	6,414 /	5,448,460
2005 Goal	96.3	5,410 /	5,615,964
2007 Goal	71.43	4,173 /	5,841,614

**B. Crashworthiness Measures****Table B1 : Proportion of Persons in WI Crashes Who are Killed or Incapacitated***(Total Killed (K) and Incapacitated (A) persons per total exposed in crashes)*

<b>Year</b>	<b>Rate</b>	<b>K&amp;A Inj/</b>	<b>Persons Exposed</b>
1994 Baseline:	2.59%	9,320 /	359,249
2001 Status	2.10%	6,588 /	313,885
2003 Goal	2.26%	6,414 /	284,353
2005 Goal	2.23%	5,410 /	242,769
2007 Goal	2.37%	4,173 /	176,465

**Table B2: Proportion of WI Crashes in which the Worst Injury is a Death or Incapacitating Injury***(Total Fatal and Incapacitating (A) Injury crashes per all crashes)*

<b>Year</b>	<b>Rate</b>	<b>K&amp;A Crashes</b>	<b>All Crashes</b>
1994 Baseline:	4.82%	7,154 /	148,325
2001 Status	4.11%	5,149 /	125,403
2003 Goal	3.54%	4,764 /	134,711
2005 Goal	2.87%	3,959 /	137,802
2007 Goal	2.00%	2,897 /	145,055

## PROGRAM GOALS

01-PA PLANNING AND ADMINISTRATION: To administer the State and Community Highway Safety Grant Program, other federal programs and state-funded highway safety activities; to coordinate the state Safety Management System and other state safety activities to make the most effective and efficient use of strategic resources.

02-OP INJURY CONTROL - OCCUPANT PROTECTION: (1) To increase statewide average safety belt use to 73% by 2003 and to 75% by 2005 and to 77% by 2007;

(2) To decrease child occupant injuries and deaths by 15% by 2003, by 20% by 2005 and by 25% by 2007.

03-AL ALCOHOL and OTHER DRUGS (AOD) COUNTERMEASURES: To decrease the number of alcohol and drug-related motor vehicle deaths and incapacitating (A) injuries to 1,219 by 2003, to 1,023 by 2005 and to 845 by 2007.

03-AL YOUTHFUL DRIVERS, ALCOHOL and OTHER DRUGS: To decrease the number of 15 to 24 year-old drivers and passengers killed or seriously injured in all traffic crashes to 2,057 by 2003, to 1,780 by 2005, and to 1,502 by 2007.

04-PT POLICE TRAFFIC SERVICES: (1) To decrease the number of speed-related crashes to 16,280 by end of 2003, to 14,652 by end of 2005 and to 13,919 by end of 2007; and to decrease the number of people killed in these crashes to 223 by end of 2003, to 201 by end of 2005, and to 191 by end of 2007; and to decrease the number of people severely injured in these crashes to 1,307 by end of 2003, to 1,176 by end of 2005 and to 1,117 by end of 2007;

(2) To decrease the number of fatal and incapacitating crashes resulting from other reported "aggressive driving behavior" to 1,770 by end of 2003, 1,500 by end of 2005 and to 1,230 by end of 2007; and to reduce the number of people killed and severely injured in these crashes to 2,374 by end of 2003, to 1,964 by end of 2005 and to 1,554 by end of 2007.

05-TR TRAFFIC RECORDS: To coordinate the development and improve the use of Wisconsin's highway safety information systems that support the planning, operational management or control and evaluation of Wisconsin's highway safety activities.

06-EM INJURY CONTROL -- EMERGENCY MEDICAL RESPONSE: To improve crash survivability and injury outcome by improving the availability, timeliness and quality of EMS response and by improving state and community support for EMS.

07-MC MOTORCYCLE SAFETY: To reduce the number of motorcycle riders killed and seriously injured in reportable crashes to 475 by the end of 2003, 412 by end of 2005 and 350 by end of 2007.

08-RS ROADWAY SAFETY: To educate county and municipal safety organizations about traffic calming techniques for highway safety and to support multidisciplinary Safe Community planning or engineering projects.

09-PS PEDESTRIAN, BICYCLE & PUPIL TRANSPORTATION SAFETY: (1) To decrease pedestrian crashes to 1,550 and combined fatalities and injuries to 338 by 2003; and decrease to 1,400 crashes and 300 K-A injuries by 2005 and to 1,200 crashes and 264 K-A injuries by 2007;

(2) To decrease bicyclist crashes to 1,000 and combined fatalities and injuries to 127 by 2003; to 800 crashes and 100 K-A injuries by 2005 and to 600 crashes and 83 K-A injuries by 2007.

10-CP CORRIDOR and COMMUNITY TRAFFIC SAFETY and SAFETY OUTREACH : (1) To promote increased multidisciplinary safety activities in 20 communities;

(2) To inform the general public and safety advocates of changes in laws, new data, new studies, program opportunities, etc. and to reach 2 high-risk audiences with motivational and informational safety messages.

12-PT LARGE TRUCK SAFETY: To decrease the number of fatalities and incapacitating injuries in crashes involving large trucks/ commercial vehicles to 517 by the end of 2003, and to 462 by the end of 2005, and resulting in a 50% reduction to 373 in 2008.

### **III. PLAN DEVELOPMENT PROCESS**

This section briefly describes the processes used by the state of Wisconsin to 1) identify traffic safety problems, 2) establish Priority Program performance goals and objectives and 3) select strategies and activities to achieve those goals. Critical participants in the planning process are: BOTS Staff, the WisDOT Transportation Safety Council and the Safety Management System Partners (WHSP).

#### **1. Traffic Safety Problem Identification**

State and National Priorities: The first step in the traffic safety planning process was the examination of priority areas identified by state and national health and safety organizations, from federal and state strategic and related operational plans and strategic plans and guidelines from a variety of national organizations. The NHTSA and FHWA *Strategic Plans*, the *WisDOT Strategic Plan*, the *National Healthy People 2010* injury objectives and *Turning Point 2010, A Public Health Agenda for the State of Wisconsin*. Primary and secondary data were evaluated with the assistance of state and local, public and private sector transportation, enforcement and public health and safety professionals with expertise in each Priority Program Area.

Data/Trends/Normalization: Knowledge of risk factors in each of the identified priority areas was further refined by examination of Wisconsin crash, vehicle, driver, roadway and travel data, citation data, observational and opinion surveys, and Behavioral Risk Factor Surveys. Crash data from 1983-2001 were used to establish trends and projections. Linkages were made with other statewide databases such as hospital discharge summaries. These data were pooled to identify priority geographical areas and priority populations, and were normalized using population, VMT, roadway miles, driver and vehicle registrations and occupants exposed. Detailed information may be found in annual publications: *Wisconsin Traffic Crash Facts*, *Wisconsin Alcohol Traffic Crash Facts* and *Wisconsin Motorcycle Crash Facts*, and in special reports from the Bureau of Transportation Safety, and in the maps found in the next section of this plan.

Targets: High-risk target populations, high-risk behaviors and high-crash locations received priority in establishment of the Supporting Objectives, and in funding the planned activities. Although some programs will lend themselves to statewide or regional solutions, special emphasis has been placed on developing local solutions to local problems. Targets may include age, gender, location, ethnicity, and day, date or time of injury, among other factors.

#### **2. Goals and Objectives**

Annual and long-term Statewide Goals and Performance Measures were established using population, crash, citation and behavior trend data and assessment of current needs and resources. Goal development was also informed by examination of annual and long-term state and federal transportation safety and public health policies and goals. Proposed State and Program Goals were reviewed by the Traffic Safety Council, the WHSP, the BOTS Director and safety analysts during the Highway Safety Plan development process, for conformity with state and federal goals and objectives, and for consistency with program activity, history and long-range planning. Draft goals and objectives were distributed widely within the safety community.

Primary Indicators used to assess risk are the numbers of fatalities and serious ("A" or "Incapacitating") injuries that result from traffic crashes. (n.b., Wisconsin and other states' CODES data indicate that police-reported

injury severity is incorrect in more than 30% of hospitalized cases, but we have not yet developed a way to correct for this limitation of our analyses.)

Program Goals are established for each Priority Program identified during the problem ID process. Program Goals must support the Statewide Goal of decreases in deaths and severe injuries. Program Goals are developed using trend analyses, resources available, and proven effectiveness of program strategies. Program Goals are established for the operational year and for 2-year increments projected by odd year out five years. For the 2003 HSP, the increments are 2003, 2005 and 2007; for 2004, they will be 2004, 2005, 2007, and 2009, for 2005, they will be 2005, 2007 and 2009, etc. This overlap of goals between annual plans will permit analysis of activity levels and selected strategies from year to year.

"Interim" Program Objectives with specified performance measures and baseline data, support the achievement of each Program Goal. Each Program Objective must be reasonably achievable, measurable and time-framed, and must support one or more Program Goal. Objectives are given for the operational year, but may also be projected for additional years.

During the first quarter of each year, program staff review the prior year's crash and survey data and safety project experience, and refine the program goals and objectives and performance measures as required by this review. Behavior change is a work in progress, so that these goals and objectives are likely to evolve over time as more complete and current data become available. Funding decisions for program and project activities are based upon the most recent revision of the goals and objectives and the latest information on problem severity and program effectiveness.

### 3. Strategy Selection, Activity and Project Development

Safety Strategies: Activities funded in the 2003 Highway Safety Plan are organized within Safety Strategies. The strategies listed below have been shown to be useful in effecting behavior change and in controlling injury either singly or in combination:

TABLE 00-02: BEHAVIORAL CHANGE STRATEGIES	
Education	Enforcement
Enactment	Emergency Response
Engineering/ Planning	Empowerment
Economic Incentives	Evaluation

Safety program staff continually research and select strategies and supporting activities most likely to produce the desired results. Innovative activity and project ideas are also solicited annually from safety professionals, communities, other state agencies and organizations, advocacy groups and citizens at large.

Activity Descriptions: Program staff develop activity proposals that are likely to support Program Objectives. When approved, the Activities are included in the HSP under the Objective and Strategy they support. These proposals include information in the following categories:



<b>TABLE 00-03: ACTIVITY PROPOSAL CONTENTS</b>
Problem Addressed
Project or Activity Objectives
Description of Funded Activities
Resources Required (grant funds and budget categories)
Self-Sufficiency Plan
Evaluation Plan

Objectives: Each Project or Activity Objective must be SMART (specific, measurable, reasonably achievable and time-framed), and must support one or more Program Objective. The program manager selects outcome, impact or process objectives as required by the nature of the activity and the data available for analysis. The manager also determines whether the objective will be short-term or long-term, and whether it will address certain at-risk groups, locations or behaviors. Program staff works with the Safety Analyst to describe how they will determine whether each Program and Activity Objective is met.

Grant Distribution: BOTS uses empirical evaluation findings to support programming decisions and funding requests. Funding for each type of project with multiple recipients is distributed following a written set of guidelines for determining eligibility and preference. The locations or risk groups that demonstrate the most significant problems and likelihood of positive response to the proposed project are given priority for funding. For activities repeated in multiple locations, a process based on disproportion levels of certain crash types, possible contributing causes of crashes, driver or passenger characteristics, safety equipment use and other characteristics identifies high-risk locations for each type of crash

#### **4. Review and Approvals:**

As a group the BOTS program staff review all Programs and Activity Proposals, and make initial priority and funding recommendations. The proposed Highway Safety Plan is presented to the Director of the Bureau of Transportation Safety, the WisDOT Traffic Safety Council, the Governor's Highway Safety Council and the Secretary of Transportation for final approval.

#### **5. Evaluation:**

Evaluation is a critical component in the development and implementation of traffic safety programs. The description of each Activity funded in the HSP contains information about the type(s) of evaluations that will be performed. Evaluation guidance is also provided for each funded project. However, baseline data are not yet available for many behavioral interventions; some initial steps are underway to develop survey and social marketing baseline data.

## IV. OVERVIEW of HIGHWAY SAFETY in WISCONSIN

### A Snapshot of the State and Its People

**Population:** The State of Wisconsin is geographically located in the Upper Midwest and is bordered by the states of Minnesota, Iowa, Illinois and Michigan, and by Lakes Michigan and Superior. Wisconsin encompasses 35.8 million acres of rolling hills and plains and more than 1.1 million acres of water, which brings tourists in all seasons. In the 2000 Census, Wisconsin had a population of more than 5 million unevenly distributed over 72 counties and 580 municipalities. The average state population density is less than 90 per square mile. About 65% of the population is urban and most of the urban areas are in the southeastern quadrant of the state. The state has a long, strong tradition of local control; politically, it is organized into townships, municipalities, and counties with overlapping jurisdictions.

**Minorities:** In the 2000 census, Wisconsin's population was 89 percent white, 6 percent black, and 3 percent Hispanic, and the 2000 Census documents a large percentage increase in minority populations over the last decade. Wisconsin's minority populations include Native Americans on tribal land and elsewhere, primarily in the northern half of the state, African-Americans concentrated in the larger metropolitan areas, Latinos concentrated in Milwaukee, but also dispersed, and a large population of Hmong and other Cambodians in many mid-tier cities.

**Age Distribution:** According to the United States Census Bureau, 26 percent of the population is under 18 years of age, 61 percent is between the ages of 18 and 65, and 13 percent is over the age of 65. The table below shows the great disproportion of injuries and deaths for young drivers and again for the very elderly.

<b>TABLE 00-04</b>									
<b>WI Vehicle Occupants Killed/ Injured by Age in 2001</b>									
<i>(Drivers and Passengers in Passenger Cars and Light Trucks)</i>									
Cohort	Age	WI Pop 2000	% Pop	Killed	%Tot	Injured	%Tot	A Injuries	%Tot
Unknown	**	**		0		3806	0.7%	23	0.5%
Pre-School	1to4	342,340	6.4%	13	2.1%	917	1.8%	43	1.0%
School-age	5to9	379,474	7.1%	9	1.5%	1,170	2.3%	64	1.4%
"	10to14	403,195	7.5%	10	1.6%	1,613	3.1%	123	2.7%
Youth	15to19	407,292	7.6%	82	13.2%	9,900	19.1%	921	20.5%
"	20to24	357,292	6.7%	90	14.5%	7,492	14.5%	686	15.3%
Young Adult	25to34	706,168	13.2%	94	15.2%	8,890	17.2%	731	16.3%
	35to44	875,522	16.3%	90	14.5%	8,151	15.8%	712	16.9%
Middle Age	45to64	1,190,047	22.2%	123	19.9%	9,222	17.8%	783	17.5%
Young Elderly	65to84	606,928	11.3%	84	13.6%	3,160	7.0%	369	8.2%
Elderly	85+	95,625	1.8%	24	3.9%	376	0.7%	31	0.7%
Total		5,363,675		619		51,721		4,486	

\*\* Numbers killed and injured include children under 1 and those for whom ages are unknown

Source: US Census Bureau and 2001 WI Crash Database

**Roadway System and Travel:** As a result of its farms and industrial economy, Wisconsin has high quality farm-to-market roads as well as an excellent system of freeways and primary roads. There are 110,190 miles of roads. 11,727 miles (including 640 miles of interstate freeway) comprise the state trunk highway system and 18,582 are county trunk highways. See Map 00-02. The largest proportion of road mileage is the 79,881 miles of local streets and roads.

In 2001, state residents included 3,835,549 licensed drivers who operated 4,946,305 registered vehicles. Wisconsin is a major tourist state, with seasonal influxes of visitors traveling to summer vacation spots, fall hunting camps, and winter sports activities. A preliminary estimate as of February 26, 2002 indicates that Wisconsin residents and visitors traveled 57.4 billion vehicle miles on Wisconsin roadways in 2001. See Figure 00-05 and Table 00-06 for trend information.

**Climate:** Wisconsin has an average temperature of 43 degrees F and can vary more than 120 degrees between winter low and summer high temperatures. The state's average snowfall is 45 inches and the average annual rainfall is about 30 inches. Temperature extremes and rough weather challenge both the driving public and safety professionals. A strong correlation has been noted between crash experience and severity of winter weather.

**Economy:** Wisconsin has a varied and generally healthy economy. Much of the state is rural and agricultural, ranking among the top agricultural states in the nation. Wisconsin industry varies from farming, dairy and lumbering to tourism, manufacturing and genetic engineering. Much of Wisconsin's manufacturing, especially of machinery, is located in the southeastern quadrant, but significant manufacturing of food products and paper products is more widely distributed throughout the state.

**Media:** Wisconsin print and electronic media outlets include 41 commercial and educational television stations, 184 commercial radio stations, 37 daily newspapers and about 150 newspapers published less frequently. The state is divided into seven Areas of Dominant Influence (ADI): Duluth, MN (ADI-1), Wausau (ADI-2), Green Bay (ADI-3), Minneapolis, MN (ADI-4), La Crosse (ADI-5), Madison (ADI-6), and Milwaukee (ADI-7). Other major areas in Wisconsin are linked with neighboring states: southwestern Wisconsin is in the Dubuque, IA ADI and southern Wisconsin overlaps with Rockford, IL stations. See Map 02-01.

## Crashes, Injuries and Deaths

Wisconsin falls into the middle tier of states in population and in crash experience. While our population, licensed drivers and registered vehicles are growing steadily; travel is increasing at a much greater rate.

**Figure 00-05: Wisconsin Fatalities and VMT, 1945-2001**

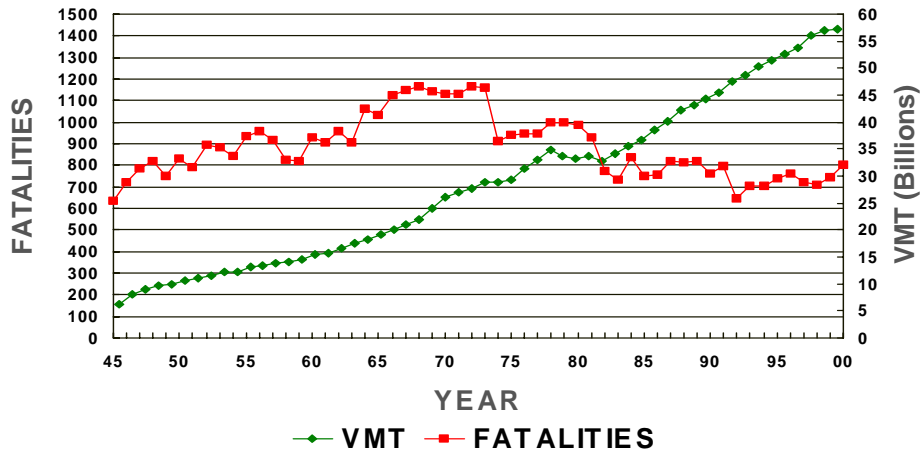


Figure 00-05 shows the trends for Wisconsin traffic deaths and total travel for the years 1945 through 2001. The annual death toll increased erratically during the 1950s and 1960s, peaking at 1,168 fatalities in 1972. This was followed by a sharp, sudden decline in 1974, a year with the national 55 mph maximum speed limit, an oil embargo, engineering improvements and the beginning of a recession. A sharp decline in traffic deaths occurred in 1982, the first year of Wisconsin's tougher drunk driving law and another recession. Another sharp decline occurred in 1992 with the passage of laws that created new penalties and treatment opportunities for OWI repeat offenders.

**Table 00-06 - Annual Exposure Data: 1994-1996; 1999-2001**

Category	1994	1995	1996	1998	1999	2000	2001
Population (1,000s)	5,083	5,124	5,147	5,234	5,259	5,364	5,401
Registered Vehicles	4,172	4,269	4,241	4,449	4,684	4,798	4,946
Licensed Drivers	3,554	3,602	3,824	3,703	3,722	3,668	3,835
Estimate VMT (Million)	50,273	51,395	52,639	56,048	56,960	57,245	57,400
Occupants Exposed	359,249	369,776	347,426	318,731	327,417	313,885	309,681

Source: Wisconsin Crash Facts, Pages 2 and 5, DOA Demographic Services Center, and WisDOT Transportation Forecast and Analysis Section VMT.

Concurrently with steady increases in population and travel, we observe steady decreases in total crashes and injuries, but fatalities show a fluctuating pattern. This pattern varies by county.

<b>Table 00-07- Annual Crash, Injury and Fatality Data: 1994-1996; 1999-2001</b>							
<b>Categories</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Total Crashes	148,325	148,864	136,698	125,817	130,950	139,510	125,403
Fatal Crashes	616	656	656	628	674	718	684
Fatalities	706	739	759	709	744	801	764
Injury Crashes	43,775	43,845	43,773	41,585	41,345	43,145	39,358
Injuries	66,403	66,232	63,048	62,223	61,577	63,890	58,279
"A" Injury Crashes	6,538	5,895	5,575	5,090	5,033	4,921	24
"A" Injuries	8,614	7,750	7,455	6,632	6,613	6,441	5,816
Total K + A Injuries	9,320	8,489	8,214	7,341	7,357	7,242	6,588

Source: Wisconsin Crash Database

The decreasing number of crashes and injuries result in decreased economic loss to the state, even when adjusted for inflation.

<b>Table 00-08 - Estimated Economic Loss: 1994-1996; 1999-2001</b>							
<b>Categories</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Deaths (K)	\$651,920,400	\$697,542,100	\$632,626,500	\$712,947,300	\$747,348,000	\$795,633,300	\$785,392,000
A Injuries	\$433,284,200	\$365,800,000	\$329,511,000	\$291,144,800	\$298,246,300	\$302,082,900	\$273,145,600
<b>Total K&amp;A</b>	<b>\$1,085,204,600</b>	<b>\$1,063,342,100</b>	<b>\$962,137,500</b>	<b>\$1,003,335,300</b>	<b>\$1,045,594,300</b>	<b>\$1,097,716,200</b>	<b>\$1,058,537,600</b>
<b>All Crashes</b>	<b>\$2,643,684,100</b>	<b>\$2,709,588,100</b>	<b>\$2,487,843,200</b>	<b>\$2,420,343,100</b>	<b>\$2,506,515,900</b>	<b>\$2,659,440,700</b>	<b>\$2,236,622,200</b>

Source: Wisconsin Crash Facts, Page 29, using National Safety Council Estimates, Adjusted for Inflation

Wisconsin uses the following definitions and the dollar costs for (K) and (A) 1999.

(K) = A Fatal Injury - An injury received in a traffic crash that results in death within thirty days of the crash. (\$1,004,500.)

(A) = Incapacitating Injury - An injury, other than fatal, that prevents walking, driving, or performing other activities that were performed before the crash. (\$45,100.) "All Crashes" includes Fatal, All Injury Levels and Property Damage Crashes.

For each crash, the reporting officer indicates whether certain vehicle, roadway or driver factors have contributed to crash causation. Wisconsin uses these "PCC's" or Possible Contributing Circumstances to develop summary data describing crash types.

Table 00-09, on the next two pages, is organized into crash types by PCCs, vehicle type and roadway type.

Table 00-09 -- 1994-2001 CRASH DATA by CRASH TYPE									
FINAL Year-End 2001 Crash Data							April, 2002		
	1994	1995	1996	1998	1999	2000	2001	94-96 Avg	99-01 Avg
Fatal Crashes	616	656	656	628	674	718	684	643	692
Injury Crashes	43,775	43,845	43,773	41,594	41,345	43,145	39,359	43,798	41,283
Property Damage Crashes	103,934	104,363	92,269	83,609	88,931	95,647	85,360	100,189	89,979
Total Crashes	148,325	148,864	136,698	125,831	130,950	139,510	125,403	144,629	131,954
Fatality Rate	1.40	1.44	1.44	1.26	1.31	1.40	1.33* prelim ^	1.43	1.35
A-Injury Crashes	6,538	5,895	5,575	5,090	5,033	4,921	4,456	6,003	4,803
Total Persons Killed	706	739	759	709	744	801	764	735	770
Total Persons Injured	66,403	66,232	66,048	62,236	61,577	63,890	58,279	66,228	61,249
Total Serious (A) Injuries**	8,614	7,750	7,455	6,632	6,613	6,441	5,824	7,940	6,293
Alcohol-Related Crashes	10,279	10,170	9,338	8,475	8,446	9,096	8,696	9,929	8,672
Alcohol-Related Fatalities	278	282	295	282	270	301	304	285	284
Alcohol-Related Injuries	8,039	7,890	7,496	6,850	6,563	6,836	6,586	7,808	6,750
Alcohol-Related A-Injuries**	1,853	1,692	1,560	1,383	1,331	1,356	1,319	1,702	1,357
Speed-Related Crashes	24,809	24,564	24,421	18,311	20,259	25,225	18,089	24,598	21,191
Speed-Related Fatalities	242	213	214	203	203	231	248	223	227
Speed-Related Injuries	14,450	14,197	14,442	11,439	12,196	13,457	10,981	14,363	12,211
Speed-Related A-Injuries**	2,231	1,979	1,943	1,571	1,678	1,596	1,452	2,051	1,575
Pedestrian Crashes	2,059	1,939	1,843	1,778	1,675	1,657	1,547	1,947	1,626
Pedestrians Killed	50	64	54	64	55	50	42	56	49
Pedestrians Injured	2,044	1,897	1,815	1,764	1,653	1,648	1,545	1,919	1,615
Pedestrian A-Injuries**	526	474	422	386	339	353	349	474	347
Bicycle Crashes	1,644	1,714	1,503	1,500	1,342	1,279	1,216	1,620	1,279
Bicyclists Killed	9	17	13	11	18	10	9	13	12
Bicyclists Injured	1,584	1,632	1,469	1,449	1,279	1,244	1,179	1,562	1,234
Bicyclist A-Injuries**	276	275	203	178	161	152	156	251	156
Motorcycle Crashes	2,297	2,057	1,823	1,989	2,012	2,078	2,285	2,059	2,125
Motorcyclists Killed	57	47	50	65	65	78	70	51	71
Motorcyclists Injured	2,208	1,963	1,834	1,925	1,965	2,014	2,166	2,002	2,048
Motorcyclist A-Injuries**	769	615	559	577	578	614	666	648	619

\*2001 fatality rate is preliminary at this time because final VMT estimates for 2001 are not available.

Fatality Rate = Fatalities per 100 million vehicle miles of travel

\*\*A-injuries = Incapacitating injuries These injuries are a subset of total injuries.  
For example, Pedestrian A-injuries are included in the category Pedestrian Injuries

	1994	1995	1996	1998	1999	2000	2001	94-96 Avg	99-01 Avg
Train Crashes	165	122	130	88	97	102	103	139	101
Train Crash Fatalities	14	8	5	4	5	13	8	9	9
Train Crash Injuries	92	65	72	50	53	56	55	76	55
Train Crash A-Injuries**	33	18	15	15	16	18	13	22	16
Construction Zone Crashes	2,405	2,338	1,925	2,004	2,175	2,155	2,192	2,223	2,174
Construction Zone Fatalities	10	14	10	15	17	8	7	11	11
Construction Zone Injuries	1,265	1,188	1,138	1,143	1,200	1,242	1,181	1,197	1,208
Construction Zone A-Injuries**	140	108	118	114	112	103	90	122	102
School Bus Crashes	1,126	1,117	945	771	838	835	800	1,063	824
School Bus Occupant Fatalities	1	0	2	0	0	0	0	1	0
School Bus Occupant Injuries	628	423	454	264	358	315	369	502	347
School Bus Occupant A-Injuries**	19	7	7	6	2	4	4	11	3
Deer Crashes	24,573	23,922	19,932	19,595	21,289	20,468	19,914	22,809	20,557
Deer Crash Fatalities	4	9	3	5	6	5	9	5	7
Deer Crash Injuries	794	822	805	783	841	806	801	807	816
Deer Crash A-injuries**	92	84	76	96	87	97	103	84	96
Large Truck Crashes	9,935	9,878	9,483	8,841	9,146	9,657	8,508	9,765	9,104
Large Truck Crash Fatalities	116	114	115	116	95	112	112	115	106
Large Truck Crash Injuries	3,771	3,591	3,810	3,524	3,469	3,787	3,271	3,724	3,509
Large Truck Crash A-injuries**	630	530	542	489	500	485	426	567	470
Urban city street crashes	53,521	54,173	49,368	44,686	45,909	50,046	45,822	52,354	47,259
Rural city street crashes	5,179	5,011	4,342	4,365	4,685	4,849	4,343	4,844	4,626
Town road crashes	13,736	14,712	13,063	11,478	12,323	13,279	11,815	13,837	12,472
County highway crashes	17,180	17,828	16,024	14,736	15,533	15,879	14,719	17,011	15,377
Urban state hwy crashes	21,059	20,306	18,110	16,851	16,713	17,870	15,671	19,825	16,751
Rural state hwy crashes	29,544	29,370	27,829	25,840	27,201	27,678	24,911	28,914	26,597
Urban interstate crashes	3,996	3,377	3,468	3,587	4,353	4,849	4,067	3,614	4,423
Rural interstate crashes	4,110	4,087	4,493	4,363	4,288	4,233	3,995	4,230	4,429

\*\*A-injuries = Incapacitating injuries      These injuries are a subset of total injuries.

For example, Pedestrian A-injuries are included in the category Pedestrian Injuries

Data Source: WisDOT-Traffic Accident Database

This table provides state totals by crash type. Tables (00-10 and 00-11), on the next four pages, provide county-level data that is used for program targeting and grant distribution decisions.

**Table 00-10 COUNTY DATA-- ALL WISCONSIN COUNTIES--2001**

County	2000 Census Population	2000 Lic . Drv.	2000 Reg. Veh.	2001 Hwy Miles	2001 STH Miles	2001 Crashes	2001 Injuries	2001 Death	2001 "A" Injuries	2001 K&A Total	2001 Injury/ Death Ratio
ADAMS	18,643	13,895	21,860	1,430	92	775	199	9	36	45	22
ASHLAND	16,866	11,526	15,738	1,167	120	314	126	5	24	29	25
BARRON	44,963	32,751	45,736	1,976	142	898	485	10	68	78	49
BAYFIELD	15,803	10,907	16,557	2,191	155	315	142	2	27	29	71
BROWN	226,778	153,819	201,951	2,218	183	4,213	2,221	19	148	167	117
BUFFALO	13,804	10,677	16,066	1,042	149	296	147	4	34	38	0.0
BURNETT	15,674	12,070	17,529	1,567	106	308	177	7	40	47	25
CALUMET	40,631	28,585	36,142	827	101	671	268	5	38	43	54
CHIPPEWA	55,195	39,280	55,693	2,078	207	1,335	513	6	55	61	86
CLARK	33,557	22,653	32,537	2,190	157	877	246	4	42	46	62
COLUMBIA	52,468	38,851	52,327	1,719	279	1,753	668	11	76	87	61
CRAWFORD	17,243	12,008	16,372	1,073	180	359	167	4	13	17	42
DANE	426,526	302,390	367,541	3,869	398	10,085	4,516	361	338	374	125
DODGE	85,897	58,888	81,286	2,021	240	1,687	654	15	108	123	44
DOOR	27,961	22,361	32,867	1,252	102	788	265	3	33	36	88
DOUGLAS	43,287	31,535	41,190	2,094	161	966	421	6	41	47	70
DUNN	39,858	25,588	36,988	1,730	204	1,112	419	7	48	55	60
EAU CLAIRE	97,296	61,816	81,016	1,541	147	2,387	1,103	9	75	84	123
FLORENCE	10,024	3,874	5,775	524	67	164	43	3	4	7	14
FOND DU LAC	97,296	68,096	93,269	1,737	226	2,559	1,057	11	128	139	96
FOREST	10,024	6,619	10,175	1,057	156	256	79	0	16	16	0
GRANT	49,597	33,783	48,175	2,097	257	1,112	445	12	58	70	37
GREEN	33,647	24,658	33,915	1,239	126	861	319	7	36	43	46
GREEN LAKE	19,105	14,153	20,672	695	70	623	184	2	34	36	92
IOWA	22,780	16,158	23,265	1,299	167	573	234	15	20	35	16
IRON	6,861	4,939	7,308	791	114	141	57	3	16	19	19
JACKSON	19,100	12,916	21,074	1,484	186	799	286	5	61	66	57
JEFFERSON	74,021	53,173	73,853	1,379	175	1,607	700	20	84	104	35
JUNEAU	24,316	18,018	26,223	1,510	192	698	2841	10	60	70	28
KENOSHA	149,577	98,070	118,192	1,030	117	3,399	2,151	30	188	218	72
KEWAUNEE	20,187	14,951	21,148	816	61	222	165	3	31	34	55
LA CROSSE	107,120	73,353	91,284	1,143	157	2,632	1,072	6	100	106	179
LAFAYETTE	16,137	11,595	17,518	1,143	126	434	175	3	33	36	587
LANGLADE	20,740	14,924	21,597	1,183	144	317	199	4	33	37	50
LINCOLN	29,641	21,446	29,346	1,296	155	802	311	12	664	78	26
MANITOWOC	82,887	60,317	81,722	1,641	153	1,954	883	11	78	89	81
MARATHON	125,834	89,126	120,852	3,288	274	3,099	1,214	19	107	126	64
MARINETTE	43,384	32,752	46,358	2,321	153	857	428	10	57	67	433
MARQUETTE	15,832	11,329	16,990	854	87	514	144	8	35	43	18



**Table 00-10 COUNTY DATA-- ALL WISCONSIN COUNTIES--2001**

County	2000	2000	2000	2001	2001	2001	2001	2001	2001	2001	2001
	Census Population	Lic . Drv.	Reg. Veh.	Hwy Miles	STH Miles				"A" Injuries	K&A Total	Injury/ Death Ratio
MENOMINEE	4,562	2,235	703	454	41	44	20	2	4	6	10
MILWAUKEE	940,164	532,380	520,943	2,977	252	23,713	12,994	44	828	872	295
MONROE	40,899	27,756	39,278	1,623	238	1,232	418	7	59	66	60
OCONTO	35,634	26,260	37,700	1,982	142	664	391	19	52	71	21
ONEIDA	36,776	28,199	39,143	1,685	160	951	369	16	47	63	24.6
OUTAGAMIE	160,971	114,899	155,714	1,893	201	3,549	1,697	15	201	216	113
OZAUKEE	82,317	60,912	71,908	890	80	1,232	561	7	78	85	80
PEPIN	7,213	5,248	7,962	459	47	171	57	2	10	2	0.0
PIERCE	36,804	25,379	35,585	1,271	166	771	267	9	47	56	30
POLK	41,319	30,539	42,807	1,955	159	631	374	10	44	54	37
PORTAGE	67,182	44,726	59,586	1,850	155	1,797	643	14	110	124	46
PRICE	15,822	11,830	16,846	1,434	155	241	95	3	8	11	32
RACINE	188,831	126,461	150,427	1,256	159	4,199	2,555	22	195	217	116
RICHLAND	17,924	12,256	17,220	1,130	149	494	183	4	33	37	46
ROCK	152,307	106,990	138,548	2,003	254	3,618	1,686	4	167	191	70
RUSK	15,347	11,243	15,595	1,237	116	223	150	8	46	54	19
ST. CROIX	63,155	41,137	65,779	1,765	200	1,871	773	16	76	92	48
SAUK	55,225	11,610	56,678	1,791	221	1,930	968	15	123	138	65
SAWYER	16,196	28,344	16,798	1,513	161	317	151	11	20	31	14
SHAWANO	40,664	78,917	39,176	1,821	182	1,519	434	14	53	67	31
SHEBOYGAN	112,646	46,662	98,793	1,521	166	2,554	1,046	15	118	133	70
TAYLOR	19,680	14,277	21,373	1,451	111	619	192	6	29	35	32
TREMPEALEAU	27,010	19,608	28,922	1,335	177	469	226	7	58	65	32
VERNON	28,056	19,151	26,727	1,643	215	632	211	6	29	35	35
VILAS	21,033	17,308	24,329	1,587	133	591	226	10	26	36	23
WALWORTH	93,759	65,873	91,003	1,481	214	1,701	745	19	101	120	39
WASHBURN	16,036	12,284	17,325	1,404	137	377	164	3	35	38	55
WASHINGTON	117,493	85,233	106,567	1,427	189	2,232	1,067	19	125	144	56
WAUKESHA	360,767	261,969	331,014	2,838	230	6,987	3,246	25	268	293	130
WAUPACA	57,731	36,739	51,036	1,619	179	1,595	515	21	86	107	25
WAUSHARA	23,154	16,180	26,452	1,326	133	606	220	4	43	47	55
WINNEBAGO	156,763	105,456	137,767	1,466	175	3,715	1,792	10	122	132	179
WOOD	75,555	55,987	79,768	1,757	180	1,396	666	6	84	90	111
STATE TOTAL	5,363,675	3,657,898	4,667,579	112,356	11,763	125,403	58,279	764	5,824	6,588	76
UNKNOWN											

SOURCE: DOT/DMV Bureau of Driver Services; DOT/TAS Crash Data; DOA Pop Data; DTIM/Traffic Forecasting.

<b>Table 00-11: COUNTY DATA—SPEED, ALCOHOL, SAFETY BELT USE--2001</b>											
<b>County</b>	<b>Media Market ADI</b>	<b>2001 Belt Use</b>	<b>2001 Crashes</b>	<b>All Speed Crashes</b>	<b>Speed Crash Deaths</b>	<b>Speed A Injuries</b>	<b>K&amp;A Speed Crashes</b>	<b>All Alcohol Crashes</b>	<b>Alcohol Crash Deaths</b>	<b>Alcohol A Injuries</b>	<b>K&amp;A Alcohol Crashes</b>
ADAMS	2	63.8	775	76	2	11	13	57	2	12	14
ASHLAND	1	62.5	314	51	2	11	13	28	2	5	7
BARRON	4	59.4	898	190	3	28	31	73	3	16	19
BAYFIELD	1	62.5	315	74	0	19	19	30	0	14	14
BROWN	3	70.0	4,213	621	14	31	45	402	14	35	49
BUFFALO	5	66.9	296	60	0	18	18	30	0	5	5
BURNETT	4	59.4	308	72	4	14	18	47	4	16	20
CALUMET	3	70.0	671	83	0	5	5	39	0	5	5
CHIPPEWA	5	66.9	1,335	218	0	8	8	99	0	14	14
CLARK	2	63.8	877	117	1	18	19	56	1	10	11
COLUMBIA	6	67.6	1,753	266	4	26	30	118	4	18	22
CRAWFORD	5	66.9	359	58	0	5	5	37	0	0	0
DANE	6	67.6	10,085	1,452	9	91	100	797	9	92	101
DODGE	7	72.1	1,687	280	5	29	34	129	5	27	32
DOOR	3	70.0	788	89	1	6	7	59	1	8	9
DOUGLAS	1	62.5	966	146	4	11	15	109	4	20	24
DUNN	4	59.4	1,112	229	6	17	23	52	6	11	17
EAU CLAIRE	5	66.9	2,387	353	3	19	22	118	3	12	15
FLORENCE	3	70.0	164	22	0	2	2	16	0	1	1
FOND DU LAC	3	70.0	2,559	335	6	36	42	168	6	31	37
FOREST	2	63.8	256	31	0	2	2	26	0	7	7
GRANT	6	67.6	1,112	205	6	15	21	98	6	12	18
GREEN	6	67.6	861	165	5	13	18	71	5	8	13
GREEN LAKE	3	70.0	623	78	1	13	14	40	1	12	13
IOWA	6	67.6	573	104	3	2	5	51	3	3	6
IRON	1	62.5	141	29	3	1	4	20	3	5	8
JACKSON	5	66.9	799	94	0	19	19	44	0	15	15
JEFFERSON	7	72.1	1,607	260	4	28	32	131	4	26	30
JUNEAU	6	67.6	698	132	7	24	41	50	7	10	17
KENOSHA	7	72.1	3,399	452	10	30	40	338	10	42	52
KEWAUNEE	3	70.0	222	64	1	13	14	19	1	4	5
LA CROSSE	5	66.9	2,632	352	2	21	23	184	2	24	26
LAFAYETTE	6	67.6	434	72	1	11	12	32	1	6	7
LANGLADE	2	63.8	317	61	1	14	15	39	1	9	10
LINCOLN	2	63.8	802	127	2	21	23	41	2	10	12
MANITOWOC	3	70.0	1,954	201	0	13	13	124	0	22	22
MARATHON	2	63.8	3,099	436	7	22	29	240	7	32	39
MARINETTE	3	70.0	857	149	4	18	22	97	4	25	29
MARQUETTE	6	67.6	514	64	2	12	14	47	2	11	13
MENOMINEE	3	70.0	44	18	0	3	3	10	0	3	3
MILWAUKEE	7	72.1	23,713	3,158	16	163	179	1,028	16	115	131

COUNTY DATA-- SPEED, ALCOHOL, SAFETY BELT USE--2001											
County	Medi	2001	All	Speed	Speed	K&A	All	Alcohol	Alcohol	K&A	
	Mark	Belt	2001	Speed	Crash	A	Speed	Alcohol	Crash	A	Alcohol
	ADI	Use	Crashes	Crashes	Deaths	Injuries	Crashes	Crashes	Deaths	Injuries	Crashes
MONROE	5	66.9	1,232	194	4	26	30	73	4	12	16
OCONTO	3	70.0	664	120	5	15	20	63	5	15	20
ONEIDA	2	63.8	951	159	5	10	15	76	5	9	14
OUTAGAMIE	3	70.0	3,549	406	1	38	39	271	1	34	35
OZAUKEE	7	72.1	1,232	207	0	29	29	72	0	16	16
PEPIN	4	59.4	171	13	2	1	3	12	2	2	4
PIERCE	4	59.4	771	102	2	14	16	73	2	13	15
POLK	4	59.4	631	130	2	12	14	69	2	10	12
PORTAGE	2	63.8	1,797	177	3	21	24	103	3	23	26
PRICE	2	63.8	241	40	1	3	4	16	1	2	3
RACINE	7	72.1	4,199	497	8	25	33	316	8	38	46
RICHLAND	6	67.6	494	59	0	7	7	31	0	7	7
ROCK	6	67.6	3,618	622	10	32	42	309	10	44	54
RUSK	5	66.9	223	50	0	11	11	17	0	7	7
ST. CROIX	4	59.4	1,871	265	1	21	22	125	1	26	27
SAUK	6	67.6	1,930	330	5	29	34	158	5	43	48
SAWYER	1	62.5	317	61	7	9	16	45	7	8	15
SHAWANO	3	70.0	1,519	196	6	16	22	103	6	16	22
SHEBOYGAN	7	72.1	2,554	293	3	24	27	169	3	29	32
TAYLOR	2	63.8	619	70	4	12	16	21	4	4	8
TREMPEALEAU	5	66.9	469	86	3	22	15	47	3	12	15
VERNON	5	66.9	632	69	4	7	11	44	4	7	11
VILAS	2	63.8	591	140	7	9	16	62	7	6	13
WALWORTH	7	72.1	1,701	262	4	30	34	166	4	24	28
WASHBURN	1	62.5	377	54	1	3	4	40	1	7	8
WASHINGTON	7	72.1	2,232	387	8	24	32	188	8	27	35
WAUKESHA	7	72.1	6,987	1,223	6	69	75	376	6	48	54
WAUPACA	3	66.9	1,595	146	2	26	28	101	2	14	16
WAUSHARA	3	66.9	606	102	0	13	13	29	0	7	7
WINNEBAGO	3	70.0	3,715	421	3	19	22	229	3	36	39
WOOD	2	63.8	1,396	164	2	12	14	97	2	20	22
			125,403	18,089	248	1,452	1,700	8,695	248	1,319	1,567
STATE TOTAL					244	1,700					

SOURCE: DOT/DMV Bureau of Driver Services; DOT/TAS Crash Data;DOA Pop Data; DTIM/Traffic Forecasting.

The following map provides a simplified view of some of these data.

# MAP 00-01

## Persons Killed and Seriously Injured In All Reportable Traffic Crashes 2000



Source: 2000 WisDOT DMV Crash Database

**MAP 00-02**  
**WISCONSIN STATE TRUNK HIGHWAYS**



45 Percent of Crashes occur on the 11,000-mile State Trunk Network. 55 percent of crashes occur on the more than 100,000-mile network of local roads and streets.

# SAFETY PROGRAM PLANS

## INTRODUCTION

**Organization of this Document:** Wisconsin's Plan is organized into 11 Priority Program Areas, reflecting federal funding priorities and priorities assigned by analysis of Wisconsin crash data and other traffic records. Each Program Plan contains: 1. problem identification, 2. a set of goals and objectives that support the statewide primary goal, 3. estimated funds allocated and 4. a series of projects or activities that support program objectives.

**1. Problem Identification:** For each program, problem identification documents: A. the magnitude and nature of the highway safety issue to be addressed, B. at-risk groups, behaviors and locations; C. identification and justification of Strategies known to be effective in addressing these issues and groups, and D. criteria for grant award, permitting the distribution of the program funds to the locations and/or organizations most likely to use them to achieve the Program goals and objectives.

**2. Program Goals and Objectives:** Each program area has at least one measurable goal supported by multiple measurable ("SMART") objectives.

Goals are general statements about the overall change desired in the problem based upon problems identified by the process above. Progress toward each goal is measured by process, impact and outcome objectives.

Objectives are specific statements of measurable, realistic and time-framed changes that will support the goals identified above.

Performance Measures are statements of the specific means by which the state will track its progress toward each objective and goal.

Baselines are the points from which progress is measured. When baseline data are not available, they will be gathered during the identified fiscal or calendar year.

Base Year Either CY 1994 or the three-year average of 1994-1996 is used as the baseline, as required by the nature of the data. 1994 is used as the first year for computations because Wisconsin adopted a new Police Crash Report beginning January 1, 1994. Data from this date forward are more complete and are comparable from year to year.

Status is given in terms of the most recent complete calendar year, fiscal year or survey result. The most recent calendar year crash data available is 2001 and the most recent completed fiscal year is 2001.

**3. Estimated Funds Available:** All funds from all sources are included in the program budget. The FFY2002 402 fund level is being used as the basis for 2003 programming. **The 402 funds are overestimated by up to 20 percent.** The other funds are estimated based upon best information available at this time, and planned to be distributed throughout the coming fiscal year.

**4. Program Strategies and Activities to Address Identified Problems:** The documentation for each Program Area also includes a “Table of Strategies and Activities.” The Table is organized into the Strategies selected as being most effective in achieving the program goals, and within each Strategy the funded activities are described in detail. Each activity description provides one or more objective, funding level and use, plans for self-sufficiency and type of analyses to be performed. Program objectives are listed in the same order as the strategies and activities that support them. Some activities will have an effect on more than one objective or more than one program area.

Each program is organized to include strategies and activities funded with 410, 411, 2003(b), 157, 164, USDOJ, and State funds, integrated with the 402-funded activities, all summarized at the beginning of each Program description. A detailed budget for all funds may be found at the end of this plan.

**03-01**  
**PLANNING AND ADMINISTRATION**

**Program Goal:** To administer the State and Community Highway Safety Grant Program, other federal programs and state-funded highway safety activities; to coordinate the state Safety Management System and other state safety activities to make the most effective and efficient use of strategic resources.

**FUNDS**

<b>PLANNING &amp; ADMINISTRATION FUNDS 01</b>						
<b>Activity</b>	<b>Title</b>	<b>Fed</b>	<b>State</b>	<b>Local</b>	<b>Tot Prog</b>	<b>Loc Benefit</b>
03-02-01	Program Mgmt	225,000	0	2,000	227,000	56,250
<b>402 TOTAL</b>	<b>(PA)</b>	225,000	0	2,000	227,000	56,250
State 461	402 Match	0	331,000	0	331,000	0
<b>Total State</b>	<b>(461)</b>	0	331,000	0	331,000	0
<b>TOTAL ALL FUNDS</b>		225,000	331,000	2,000	558,000	56,250

**PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION**

The safety mission as administered through the State Highway Safety Office requires coordination of multidisciplinary programs from multiple funding sources, each with its own set of regulations and program goals. This may include leadership in internal WisDOT activities such as the Traffic Safety Council and external activities such as the Wisconsin Highway Safety Partners, the Governor's Council on Highway Safety and membership on other state health and safety coordinating bodies, as well as leadership in the development of a Safety Strategic Plan required by the 1999 WisDOT Strategic Plan.

The safety mission also requires the coordination of overlapping activities performed by other state and local agencies, organizations and professional groups, and by advocacy groups. The State Highway Safety Office must attempt to achieve the maximum cooperation and collaboration in order to make most effective and efficient use of resources.

The existing Highway Safety project selection process is not competitive and does not contain written criteria for funding. BOTS is reevaluating its funding process and needs to test its proposed Request for Proposal process for the 2004 Highway Safety Plan. The 2004 statewide RFP process will begin in November 2002, so the pilot tests began early in 2002. They are funded under the 2003 Highway Safety Plan. During FFY2003, the Highway Safety Office will evaluate a Request for Proposal (RFP) process for Highway Safety grant planning. The RFP process will be pilot tested and evaluated in five areas of the state and for five types of project: Safe Community Coordination, Safe Community Umbrella Activities; Umbrella Community Law Enforcement



Activities; Umbrella School-based Activities and Innovative Alcohol and Belt Community Activities. If successful, the process will be instituted for the 2004 Highway Safety Plan.

## **PROGRAM OBJECTIVES**

### **Objective 1: To produce required plans and documentation.**

Performance Measure: Timely delivery of annual programs, plans and evaluation reports.

Baseline: Annual Highway Safety Plan, Alcohol Traffic Safety Plan, and Evaluation Report delivered to NHTSA.

Status: FY 2002 HSP delivered at end of August; FY 2000 Annual Report delivered first week of January; FY 2000 project evaluations completed first week of March, 2001. Since FY 2000, HSP has integrated 402, 410 and MCSAP plans, and documents set-aside programs, demonstration grants, USDOJ and state funded activities administered by the Bureau of Transportation Safety.

### **Objective 2: To deliver programs that are effective in changing knowledge, attitude and behavior and in reducing crashes, injuries and deaths.**

Performance Measure: Analyses of program effectiveness based on moving three-year average state motor vehicle crash, death and injury data; and trend data based upon annual and episodic observational and opinion surveys.

Baseline: 1994-1996 average for crashes was 144,629; for injuries was 66,228 and deaths was 735.

(Note: reporting threshold increased from \$500 to \$1000 in 1996.) Statewide average safety belt use increased from 26% in 1987 to 61.7% in 1996. No information available for changes in KAB.

Status: In CY 2001, crashes, injuries and deaths decreased to 125,403, crashes, 58,279 injuries and 764 deaths. Belt use rose to 68.5 percent. Few analyses of program effectiveness were performed.

Although project and program effectiveness was required by the 2001 HSP, most projects did not require data collection or evaluation.

### **Objective 3: To coordinate transportation safety and injury control programs for the Department of Transportation and for the State of Wisconsin.**

Performance Measure: The number of transportation safety and injury control programs that are statewide in scope and multidisciplinary in nature, in which BOTS takes an active role.

Baseline: BOTS coordinates the WisDOT Traffic Safety Council, the state Safety Management System (now WHSP), and the state Safe Communities program.

Status: In CY 2001, the Traffic Safety Council met irregularly, the Wisconsin Highway Safety Partners met three times, the State Traffic Records Coordinating Committee met quarterly and Safe Communities activity increased. Coordinated development of 402, 410 and MCSAP plans continued. BOTS was represented on the State EMS Board, the EMS for Children Board, the Wisconsin Division of the American Trauma Society Board, the State Health Plan for 2010 Injury Committee, and other interagency planning bodies.

### **Objective 4: To evaluate a proposed change to incorporate a competitive Request for Proposal process into the development and implementation of a portion of the FFY2004 Highway Safety Plan.**

Performance Measure: Five projects in place, one in each safety region and one of each type, process and materials developed and critiqued by pilot projects by November 15, 2002. Baseline: BOTS current grant distribution process is more an entitlement process based on the location of crashes and traffic violations. The current system does not reward local initiatives for highway safety activities.

Status: By second quarter 2002, a process has been mapped out in general terms by BOTS staff. RPMs are requesting participation by potential pilot communities.

## TABLE of STRATEGIES & ACTIVITIES

### STRATEGY: PROGRAM MANAGEMENT

#### ACTIVITY: 02-01-01-PA PLANNING & ADMINISTRATION - 402 funded

**Problem:** Need state, county and local-level coordination of multidisciplinary programs with funds from several funding sources, and with overlapping regulations.

**Objectives:**

1. Produce all plans and documentation required by WisDOT Strategic Business Plan (Annual Highway Safety Plan, Alcohol Traffic Safety Plan, and PI&E Plan, coordinated with Bureau Strategic Business Plan and other safety plans). And Produce Annual Reports.
2. Deliver programs that are effective in changing knowledge, attitude and behavior to reduce crashes, injuries and deaths. Organize, facilitate, staff, or otherwise support state and local highway safety activities, including statutory bodies, department, interagency and advocacy groups.
3. Coordinate transportation safety and injury control programs for the Department of Transportation and for the State of Wisconsin
4. Produce annual operating budgets and develop biennial budget issues and strategies
5. Evaluate the use of an RFP process for HSPP development by November 2002.

**Resources:** \$225,000 to support Assistant Director, Section Chief, LTE Receptionist/ communications Assistant and LTE administrative. Required match with Director, Executive Assistant/ Grants PA, office space and material.

**Self-sufficiency:** 50% state match. Integration into WisDOT business plan.

**Evaluation:** Annual Report. Strategic Business Planning Process.

#### ACTIVITY: PLANNING & ADMINISTRATION - state appropriation 461

**Problem:** Need state, county and local-level coordination of multidisciplinary programs with funds from several funding sources, and with overlapping regulations.

**Objectives:**

1. Produce all plans and documentation required by WisDOT Strategic Business Plan (Annual Highway Safety Plan, Alcohol Traffic Safety Plan, and PI&E Plan, coordinated with Bureau Strategic Business Plan and other safety plans). Produce Annual Reports.
2. Deliver programs that are effective in changing knowledge, attitude and behavior to reduce crashes, injuries and deaths. Organize, facilitate, staff, or otherwise support state and local highway safety activities, including statutory bodies, department, interagency and advocacy groups.
3. Coordinate transportation safety and injury control programs for the Department of Transportation and for the State of Wisconsin
4. Produce annual operating budgets and develop biennial budget issues and strategies

**Resources:** \$331,000 to support Director, and Executive Assistant/ Grants PA, office space and material.

**Self-sufficiency:** Required 50% state match for Section 402 program.

**Evaluation:** Annual Report.

**03-02**  
**INJURY CONTROL - OCCUPANT PROTECTION**

**Program Goal:** To increase statewide average safety belt use to 73% by 2003 and to 75% by 2005 and to 77% by 2007.

**Program Goal:** To reduce child occupant injuries and deaths by 15% by 2003, by 20% by 2005 and by 25% by 2007.

Based upon a national use rate of 73 percent in 2001, the NHTSA National Goal for 2003 is 78 percent. The second NHTSA national occupant protection goal is to reduce child passenger fatalities (0-4 years) by 25 percent by 2005.

**FUNDS**

<b>OCCUPANT PROTECTION FUNDS 02</b>						
<b>Activity</b>	<b>Title</b>	<b>Fed</b>	<b>State</b>	<b>Local</b>	<b>Tot Prog</b>	<b>Loc Benefit</b>
03-02-01	Program Mgmt	65,000	10,000	10,000	85,000	16,250
03-02-02	PI&E	100,000	50,000	150,000	300,000	50,000
03-02-03	Training-TOPS	5,000	2,000	5,000	12,000	2,500
03-02-04	Community Prog-SC	20,000	2,000	15,000	37,000	20,000
	Teen Buckle Down	30,000	4,000	20,000	54,000	30,000
	Church Challenge	30,000	2,000	15,000	47,000	30,000
	School-based programs	20,000	2,000	15,000	37,000	20,000
03-02-05	Clickit, Why Risk It	200,000	5,000	100,000	305,000	50,000
	LE Liaisons	75,000	3,000	35,000	113,000	18,750
03-02-06	Observ Survey	75,000	2,000	35,000	112,000	18,750
03-02-07	CPS - WINS	95,000	2,000	45,000	142,000	47,500
	CPS - WCPSA	5,000	1,000	3,000	9,000	2,500
03-02-08	CPS - Training	25,000	2,000	50,000	77,000	6,250
<b>402 TOTAL</b>	<b>(OP)</b>	<b>745,000</b>	<b>87,000</b>	<b>498,000</b>	<b>1,330,000</b>	<b>312,500</b>
03-02-09	Observ Survey	50,000	20,000	40,000	110,000	12,500
03-02-10	Convincer Support	61,000	1,000	5,000	67,000	30,500
<b>Total 157</b>	<b>(157OP)</b>	<b>111,000</b>	<b>21,000</b>	<b>45,000</b>	<b>177,000</b>	<b>43,000</b>
03-02-11	CPS Fitting Stations	25,000	5,000	7,500	37,500	25,000
03-02-13	CPS Training	200,000	10,000	100,000	310,000	100,000
<b>Tot 2003b</b>	<b>(J3)</b>	<b>225,000</b>	<b>15,000</b>	<b>107,500</b>	<b>347,500</b>	<b>125,000</b>
03-43-02	157 Innovative - Clickit	1,800,000	100,000	300,000	2,200,000	800,000
<b>Total 157</b>	<b>(DX)</b>	<b>1,800,000</b>	<b>100,000</b>	<b>300,000</b>	<b>2,200,000</b>	<b>800,000</b>
<b>Total</b>	<b>ALL FUNDS</b>	<b>2,881,000</b>	<b>223,000</b>	<b>950,500</b>	<b>4,054,500</b>	<b>1,280,500</b>

## PROBLEM IDENTIFICATION

Not all crashes are survivable. Seatbelts are not 100 percent effective in preventing fatal injuries. Seatbelts do not prevent crashes from occurring. They are, however, generally accepted as the most effective means of reducing fatalities when crashes do occur. National research indicates that seatbelts (i.e., properly used lap/shoulder belts) lower the risk of fatal injuries for front seat auto occupants by 45 percent, and by 60 percent for light truck occupants.

The National Highway Traffic Safety Administration (NHTSA) estimates the following savings in lives, injuries and economic costs, for specified increases in belt use for the state of Wisconsin. Each one percentage point increase in safety belt use in Wisconsin would be equivalent to an additional 38,000 motorists buckling up.

<b>Table 02-01</b>						
<b>NHTSA Estimates of Benefits of Increased Seat Belt Use in Wisconsin</b>						
WI Rate and 5%, 10% and 15% gains.	Estimated Fatalities Prevented	Cumulative Fatalities Prevented	Estimated Injuries Prevented	Cumulative Injuries Prevented	Estimated Cost Savings	Cumulative Cost Savings
2001 Usage Rate	238		8,732		\$524 million	
Additional Savings at 73.7%	24	262	624	9,356	\$45 million	\$587 million
Additional Savings at 78.7%	50	288	1,248	9,980	\$91 million	\$633 million
Additional Savings at 83.7%	76	314	1,872	10,604	\$138 million	\$680 million

*Source: National Highway Traffic Safety Administration (2002) Fatal and injury trends based upon 1987-2000 data*

### A. MAGNITUDE and SEVERITY of BELT USE/MISUSE PROBLEM

Statewide Average Use: While correct use of safety belts is widely known to protect passengers in motor vehicle crashes, thirty-two percent of vehicle passengers on Wisconsin roadways still do not wear their safety belts, and more than 80% of child safety seats are not used correctly.

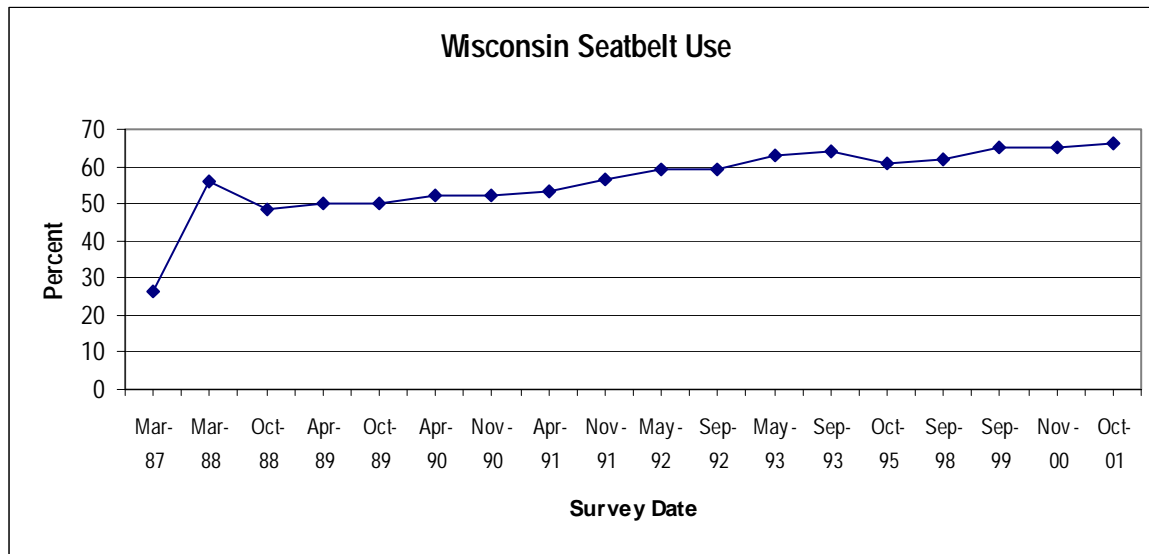
Four measures of belt use can be used: (1) observed use, (2) use reported to enforcement officers at a crash, (3) use reported to medical care providers after the crash, and (4) belt use determined for fatalities.

(1) Observed 2001 statewide average use was 68.7 percent. Of Wisconsin's 3,835,549 licensed drivers, approximately 2,635,000 currently wear safety belts.

Longitudinal data are available from semiannual observational surveys of belt use taken at 280 locations statewide through 1994, and annual surveys thereafter. While the 1987-1993 survey methodology remained unchanged and its results were internally consistent, back-seat passengers and pick-up truck occupants were counted. With the non-conforming counts removed from the sample, Wisconsin's average belt use rose several percentage points. Wisconsin's sampling methodology was changed in 1994 to comply with NHTSA guidelines. ("Survey Guidelines --

section 153.11 Fed. Reg, (06-29-92).”) More observations were done on local roads than in past surveys. The survey also breaks down the state by major media markets (“ADI’s” – see map 02-01) as a basis for targeting portions of the state for media support of community and enforcement efforts.

**FIGURE 02-02: Observational Surveys 1987-2001**



Statewide average use rose from a pre-law statewide average of 26%, to an initial high of 56% in 1988. Belt use then plateaued at about 50% throughout 1989, then rose slowly to plateau again at just over 60% from 1993-1999. Statewide average use in October of 2001 was 68.7%, an increase of 3.3% over the prior year, but still lower than the national average use of 73%.

(2) Belt use reported to the enforcement officer in the crash report is consistently much higher than either observed belt use or use reported to medical care providers. In 2000, for example, while 202,468 (90%) of crash occupants reported to the recording officer that they were properly restrained at the time of the crash, the statewide average observed belt use rate in 2000 was only 65.4 percent.

(3) This information is not currently being collected in Wisconsin, but is proposed to be a component of the EMS run data system and trauma registry data system currently under development.

(4) In 2001, 63% of fatalities and almost 42% of persons sustaining incapacitating injuries were determined not to have been wearing their belts at the time of the crash. This is twice the statewide average of observed use! Many of these people were ejected but no study has been performed of the correlation between belt use, ejection and injury severity.

The injury patterns of belted versus unbelted occupants of motor vehicles in crashes is demonstrated in Table 02-03. Just over one percent of those wearing belts were seriously injured or killed while 18 percent of those not wearing belts were seriously injured or killed.

<b>Table 02-03 – Injuries per Occupant Exposed (Passenger Cars and Light Trucks) WI-2001</b>				
<b>Injury Level</b>	<i>Belted</i>	<i>Not Belted</i>	<i>% Not Belted</i>	<i>Total</i>
Not Injured	171,999	11,226	6.1%	183,225
Incapacitating (A)	2,406	1,721	41.7%	4,127
Non-incapacitating-B	10,039	4,009	28.5%	14,048
Possible (C)	27,273	4,112	13.1%	31,385
Killed (K)	197	339	63.2%	536
<b>Total</b>	<b>211,914</b>	<b>21,407</b>	<b>9.2%</b>	<b>233,321</b>

Source: WI Traffic Crash Facts 2001

Note: Counted only if seat location and belt use were reported to and by the traffic enforcement officer

The Wisconsin CODES data linkage project demonstrates with Wisconsin hospital discharge data that the charges for hospitalization of the victims with the worst injuries are significantly higher charges for unrestrained persons who survive their crashes.

<b>Table 02-04 Wisconsin CODES In-Patient Hospital Charges Belted &amp; Unbelted 1991-1999 **</b>						
	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>Total Occupants</b>	341,364	349,175	322,249	304,130	295,703	333,658
<b>Number missing belt info</b>	29,192	39,759	42,113	38,832	37,982	41,012
<b>Total Hospitalizations</b>	3,723	3,664	3,436	3,120	3,078	2,962
Total Hospital Charges	\$59,309,900	\$57,203,984	\$58,972,532	\$53,030,865	\$50,540,264	\$50,194,857
Average Hospital Charge	\$15,931	\$15,612	\$16,228	\$16,997	\$16,420	\$16,946
Average Charge/Occupant	\$174	\$164	\$183	\$174	\$171	\$150
<b>Total Reported Belted</b>	1836	1773	1671	1540	1566	1454
Total \$	\$23,319,056	\$22,958,783	\$22,962,919	\$22,076,440	\$21,862,669	\$24,375,082
Average \$	\$12,701	\$12,949	\$13,742	\$14,335	\$13,961	\$16,764
<b>Total Reported Unbelted</b>	1420	1444	1419	1250	1257	1244
Total \$	\$26,646,146	\$26,201,075	\$28,974,212	\$24,030,706	\$24,479,545	\$25,819,774
Average \$	\$18,765	\$18,145	\$20,845	\$19,225	\$19,475	\$20,755

\*\*Figures are for passenger vehicles and trucks

Source: Center for Health Systems Research & Analysis - UW Madison (2001)

Opinion survey : While opinion surveys taken at the time Wisconsin's law was passed indicated a sizable majority favoring a safety belt use law, no up-to-date information about attitudes toward increased enforcement or primary enforcement is currently available. A statewide knowledge and attitude survey planned for summer 2002 will include questions on safety belts, airbags and child passenger safety as well as demographic that will help the state better identify motivations and produce effective targeted behavior change activities.

## B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

Gender and Age: The 2001 observational survey found that 73.1% of female occupants were belted, while only 59.6% of males were belted.

Highest belt use (75.8%) was observed in Older Adults (60 and up), and young children (0-4) at 92.5%, and lowest was young people (16-25) at 55.5%. Adults ages 26-59 were belted 68.6% of the time, and children ages 5-15 were belted or in safety seats 63.9% of the time.

In a study of 2,600 occupants of passenger vehicles fatally injured in crashes in Wisconsin between 1997 and 2001, these risk groups are even more starkly delineated. Seventy-one percent of male fatalities were unbelted (only 29% were belted, compared with 59.6% in the observational survey). Young adult victims were most likely not belted.

<b>Table 02-05: Fatally Injured Passengers 1997-2001</b>					
Age Cohort	Total Killed	Unbelted & Killed	% Unbelted	Males Killed	% Unbelted Males Killed
1-9	53	11	21%	31	19%
10-14	38	24	63%	17	
15-19	391	275	70%	187	75%
20-24	336	262	78%	205	83%
25-34	389	304	78%	217	84%
35-44	369	253	69%	183	76%
45-64	474	287	61%	295	
65-84	433	204	47%	237	
85 plus	98	204	36%	55	40%

*Source: DMV Crash Database*

The highest risk group for death in a motor vehicle crash while not belted was the 20-34 year old male. Only 16 or 17 percent of these young men were wearing a safety belt at the time of the crash that killed them. This set of "hard core" non-users becomes a high proportion of all non-users every year as a greater percent of the other more risk-averse groups begin to buckle up.

Vehicle Type: In 2001, occupants of pick-ups had lowest average use, at 47.5%, and occupants of vans had highest use at 73%.

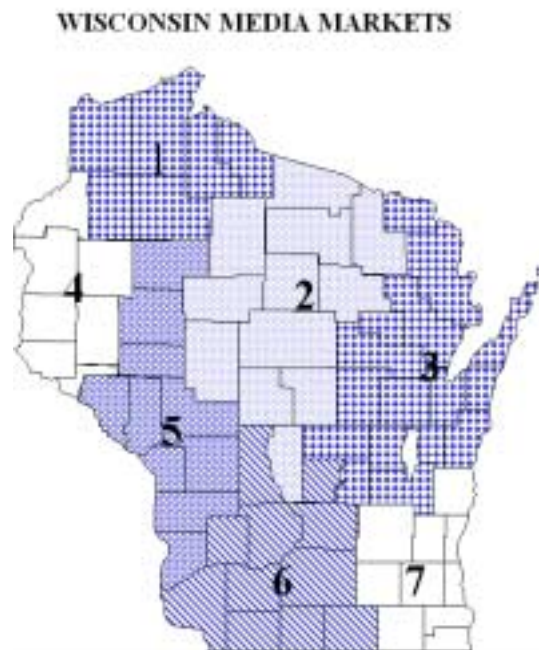
Minority Populations: A few observational surveys and some anecdotal information indicates that most minority populations have lower belt use than the Wisconsin average. Culturally sensitive messages and media must be used to address these groups. An observational survey is planned to take place during late 2002 in several communities with large African-American populations. Similar surveys are planned for 2003 for communities with large Latino/Hispanic populations.

Location: In 2001, average belt use varied by nearly 10 percentage points from one area of the state to another. Belt use was aggregated within Areas of Dominant Influence or media market

areas. Lowest use was observed in the western part of the state (59.4%) and highest in the Milwaukee area (72.1%). Use was generally higher in the more urbanized areas.

When last surveyed with a methodology permitting such description, belt use was generally low in the rural and northern portions of the state and higher in the heavily populated southeast quadrant and in west central Wisconsin. In 1993, belt use in cities ranged from a high of 72 percent in Eau Claire to a low of 52 percent in Superior. This level of detail is not possible with the current survey methodology.

**MAP 02-01**  
**2001 Safety Belt Use By Wisconsin Media Markets**



ADI	Average Belt Use
1 – Duluth/Superior	62.5%
2 – Wausau/Rhineland	63.8%
3 – Green Bay/Appleton	70.0%
4 – Minneapolis/St. Paul	59.4%
5 – La Crosse/Eau Claire	66.9%
6 – Madison	67.6%
7 – Milwaukee	72.1%

**C. STRATEGIES FOR DECREASING DEATHS & INJURIES:**

Enforcement activity is not enough to encourage belt use or correct use of child safety seats; other partners, including the medical community and businesses have not been brought in as proponents. Over more than 30 years, the greatest effectiveness in encouraging belt use and other preferred behaviors is obtained when multiple strategies are employed; in the case of belts, standard enforcement laws with serious financial or other consequences, waves of enforcement



preceded and followed by public information that increases the perception of risk of citation. Education about the benefits of belt use is effective with some sub-populations.

#### Strategy - Seat Belt and Child Safety Seat Legislation:

History: Wisconsin was the 29th state to enact a mandatory seat belt use law for both front and rear seat occupants of motor vehicles. Wisconsin's law (Sec. 347.48, - Wis. Stats., 1987 Wis. Act 132) became effective December 1, 1987. In its current form, this secondary enforcement law applies to Wisconsin residents and non-residents in all front seat positions and in rear seat positions equipped with three-point belts. The law carries a flat forfeiture of \$10 and no points are assigned against a person's driver record. Those subject to the penalty include operators, operators with unrestrained passengers 4 to 16 years old and passengers at least 16 years old.

Belt use enforcement is secondary, safety checkpoints are illegal in Wisconsin, and the 1999 legislative session passed a "quota bill" to discourage the setting of performance standards for traffic enforcement activity.

Primary Enforcement Legislation: The Wisconsin Safety Belt Coalition was reorganized in 1998. They have had limited success in two attempts to introduce standard enforcement legislation, and are watching the fall 2002 elections to determine whether to renew legislative efforts in the 2003 Session.

Strategy - Enforcement of Safety Belt and Child Passenger Safety Laws: Numerous studies have shown that after belt use laws are passed, there is an initial wave of voluntary compliance. However, highly publicized and visible waves of enforcement of belt laws are necessary for the public perception of risk of citation, and this is key to increased safety belt compliance by those risk-takers who are least likely to buckle up.

History: From the time Wisconsin's law was enacted in 1987 until the spring of 1991, enforcement was sporadic at best. Most citations were issued at crashes. Police officials often said that the failure to enforce was because Wisconsin's secondary law was difficult to cite. Enforcement officers' opinion at that time was that the Legislature wasn't serious about the law when they made it our only secondary enforcement law, and with a flat \$10 forfeiture.

This occupant protection enforcement rate was very low until the mid-nineties, especially when observational surveys indicated that nearly 40 percent of the traveling public was violating the law. However, since the mid-90's, the citation rate for occupant protection violations has risen dramatically as a result of the high level of traffic enforcement activity. Enforcement of the child safety restraint law has not been as high a level, reflecting officer uncertainty about the child's age and correct use, and the relatively much higher forfeiture (\$75.00) and additional fees.

Citations: A high level of belt use enforcement has been maintained although for two years a decrease in number of safety belt convictions and their percent of all traffic convictions was noted. In 2001, 94,013 motorists were convicted of violations of occupant protection laws. The total

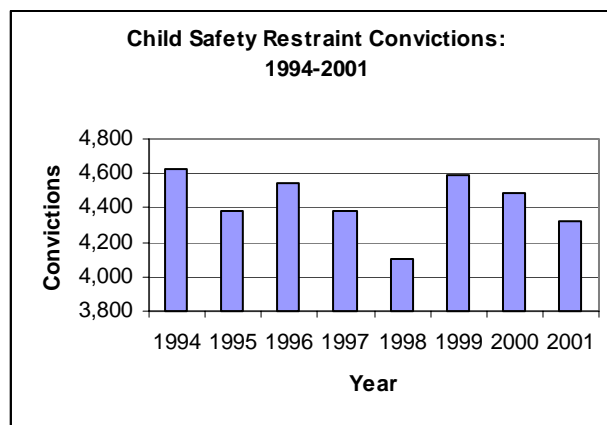
consists of 4,327 child passenger safety violations and 89,686 safety belt violations, which is slightly over 11 percent of all traffic convictions.

**Table 02-06: Traffic Convictions Entered on Driver Record File -- 1994-2001  
OCCUPANT PROTECTION CHARGES**



Convictions for failure to fasten safety belts increased by more than 13,000 in 2001 over 2000. During the same time, convictions for child safety seat violations decreased by 155.

**Table 02-07: Traffic Convictions Entered on Driver Record File -- 1994-2001  
CHILD RESTRAINT USE CHARGES**



Strategy - Education and training: Child safety seat use is so complicated that, ideally, every individual should be educated in correct installation and use of their equipment. This is clearly impossible to do from the state level, so training and certification of child safety seat experts who can be available locally is being made available throughout the state.

Strategy - Evaluation: Statewide, local and subgroup observational and opinion surveys will be used to target enforcement and education activities and to identify motivators for non-use in high-risk populations.

Strategy - Empowerment: Provision of technical support, community grants, and data or survey methodologies will give communities the tools and incentives to identify the problems they need to address locally and ideas for addressing the problems to change social mores. Expanding partnerships with diverse organizations and high-risk and hard-to-reach populations, as well as expanded outreach to minority audiences also contribute to community empowerment.

#### D. PROJECT SELECTION CRITERIA

General Criteria: Communities with population in excess of 10,000 and with many highway miles and other exposure factors (County Data in Table 00-10), a plan to evaluate the effectiveness of coalition-supported activities, and a history of using Highway Safety funds effectively as seed money to develop continuing programs.

Smaller communities may be eligible if they demonstrate problems of unusual scope or usual buy-in and effectiveness in past Highway Safety projects.

Safe Community Occupant Protection Projects: Priority will be given to communities using the general factors above and with an identified and established Safe Community Coalition, with low belt use or high improper child safety seat use or low injury-to-death ratio supported by local data (County Data in Table 00-11), and applying for a new project (previously funded projects are not eligible).

Teen Buckle Down Projects: Priority will be given to communities with the general factors above and with low belt use in the teen population, supported by local data, which demonstrate community involvement through matching funds and/or activities, and involving and led by local students and law enforcement.

Church Challenge Projects: Priority will be given to communities with the general factors above and with low belt use or high improper child safety seat use or low injury-to-death ratio supported by local data and with demonstrated community planning and coordination.

Elementary and Secondary School Projects: Priority will be given to communities with the general criteria above and with low safety belt use or low injury-to-death ratio, supported by local data; and with school system, student and local law enforcement involvement.

Click-it, Why Risk It Enforcement Wave Projects: Priority will be given to communities with the general criteria above and with low belt use or low injury-to-death ratio supported by local data, large numbers of crashes and crash-related serious injuries and deaths, and with many highway miles and other exposure factors (County Data in Table 00-10).

Child Passenger Safety Fitting Station Projects: Priority will be given to communities with the general criteria above and with certified CSS Technicians performing car seat checks, demonstrated need for project start-up materials, and that are willing to make the fitting stations available to the public on an on-going basis rather than just for special events.

## PROGRAM OBJECTIVES

**Objective 1: To increase statewide average safety belt use to 73% by the end of CY 2003.**

Performance Measure: Percent of restrained occupants in all front-seat positions in passenger motor vehicles including light trucks.

Baseline: In 1994, 61.7% average statewide use demonstrated in a fall 1993 statewide observational survey.

Status: In 2001, the fall statewide observational survey found 68.7% average statewide use. A survey is planned for fall 2002.

**Objective 2: To reduce 3-year average child occupant injuries and deaths to 2,210 by the end of CY 2003.**

Performance Measure: Three-year average number of injured or killed children ages 1 to 9 in all front-seat positions in passenger cars and light trucks.

Baseline: In CY 1994, 2,709 child occupants ages 1 to 9 were killed or injured (1,189 children ages 1-4 and 1,520 children ages 5-9). The 1994-1996 three-year average was 2,664 (960 children ages 1-4 and 1,530 children ages 5-9).

Status: In CY 2001, 2,109 child occupants ages 1 to 9 were killed or A injured (930 children ages 1-4 and 1,179 children ages 5-9). The 1998-2000 three-year average is 2,281 (916 for children ages 1-4 and 1,365 for children ages 5-9).

**Objective 3: To increase statewide average correct child safety seat use to 20% by the end of CY 2003, 30% by end of 2004 and 35% by end of 2005.**

Performance Measure: Statewide average use of child safety seats for children ages 1 to 8 years old as determined in annual observational surveys of passenger motor vehicles, including light trucks.

Baseline: In 1994, 80.2% average statewide use of child safety seats in Fall 1993 observational survey. No baseline statewide data available on correct use.

Status: In fall, 2001, 84.3% of children ages 0 to 4 years and 62.3% of children age 5-15 were observed as restrained. However, child safety seat checkpoint data at numerous locations indicated an average 90 percent of car seats were incorrectly used. Two more observational surveys are planned for 2002, and the safety seat check events will continue and expand during the year.

## TABLE of STRATEGIES & ACTIVITIES

### A: GENERAL OCCUPANT PROTECTION

#### STRATEGY -- PROGRAM MANAGEMENT

<b>Activity:</b>	<b>03-02-01-OP</b>	<b>SUPPORT 1 FTE</b>	<b>PROGRAM MANAGEMENT POSITION.</b>
<b>Problem:</b>	Wisconsin average safety belt use is below the national goal of 90% by 2005 established by the President. Statewide activities require planning, coordination, communication and evaluation.		
<b>Objective:</b>	Provide oversight of program activities—Program Management position will perform data analysis and develop, monitor program and contract finances and activities for Occupant Protection and EMS Program areas. Determine statewide average safety belt use to indicate what percentage of motorists are wearing safety belts and if programs are effective.		
<b>Resources:</b>	\$65,000 for salary and fringe for 1 FTE Program Manager, travel, training, materials and supplies, memberships, subscriptions and contractual services.		
<b>Evaluation:</b>	Compare program objectives and planned activities with accomplishments and comment on reasons for success or lack thereof. Quarterly and final reviews and Annual report. Safety belt survey results.		

#### STRATEGY -- EDUCATION – Public Information & Education

<b>Activity:</b>	<b>03-02-02-OP</b>	<b>PUBLIC INFORMATION AND EDUCATION -402</b>	<b>funded</b>
<b>Problem:</b>	Those who respond to safety messages are already buckling up. The nearly 32% of Wisconsin travelers who do not use seat belts must be reached with different media and messages, and these must be updated regularly to both be perceived by the various audiences and make a difference to them. Child safety seats are not properly used because of confusing instructions. Changes in laws and technologies must be disseminated widely. A variety of messages are required for different ages and cultures.		
<b>Objectives:</b>	<ol style="list-style-type: none"><li>1. To incorporate PI&amp;E into OP programming in accord with long-range PI&amp;E plan.</li><li>2. To reach 25% of the target audiences with appropriate messages and change the behavior of 25% of them.</li><li>3. To conduct Saved by the Belt, Survivor of the Year, Click-it, Why Risk It campaigns; and Maintain Convincers.</li></ol>		
<b>Resources:</b>	\$100,000. Duplicate, print, distribute, purchase pamphlets, posters, audio, video and other promotional materials.		
<b>Self-sufficiency:</b>	Communities will be expected to pay for reproduction of state-produced materials.		
<b>Evaluation:</b>	BOTS PI&E Evaluation Administrative- number of persons receiving messages. Impact: survey changes in KAB		

**Activity: 03-02-10-157OP CONVINCER SUPPORT – Sec. 157 Incentive Funds**

**Problem:** Longitudinal data on safety belt and child safety seat use are valuable in targeting public information materials and social marketing campaigns. Multiple surveys of knowledge, attitudes and behaviors, including targeted surveys, are useful in developing media campaigns and program activities.

**Objectives:** 1. To provide statewide opportunity for a wide variety of audiences to experience the feel and look of belted and unbelted crashes by making the sled and roll-over :“Convincers” available.  
2. To provide supporting print materials at these demonstrations.

**Resources:** \$61,000. Contractual services, PI&E.

**Self-sufficiency:** None. This is part of the on-going public education.

**Evaluation:** Administrative: Numbers reached. Impact: KAB survey pre/post of audiences.

**STRATEGY -- EDUCATION – Training**

**Activity: 03-02-03-OP TOPS TRAINING**

**Problem:** Most of the Law Enforcement agencies in Wisconsin have had an instructor receive OPUE training. The curriculum has been updated and the instructors need to receive this updated training. Some agencies have new officers that need to be trained in the TOPS curriculum.

**Objective:** Increase officer awareness of importance of safety belts, child safety seats, and airbags by 20%. Provide TOPS training to 150-200 LE officers.

**Resources:** \$5,000 for instructor fees and expenses, instructor/ participant manuals, meals, other instructional materials.

**Self-sufficiency:** Instructors will be required to provide training to their own officers.

**Evaluation:** Administrative evaluation on planned activities. Survey pre/post knowledge, attitude and behavior of instructors, officers.

**STRATEGY -- EMPOWERMENT**

**Activity: 03-02-04-OP SAFE COMMUNITIES – Occupant Protection Activities**

**Problem:** Community members must collaborate to prevent all types of injuries and make their community a safer place to live by forming coalitions of public safety and health professionals, engineers and planners, private citizens and advocacy groups, and business, education and faith leaders to combine resources to implement programs that will be successful in changing public knowledge, attitudes and behaviors.

**Objective:** Provide funding for 4-6 Safe Communities in 2003. Support occupant protection activities for Safe Communities Coalitions.

**Resources:** \$20,000 for innovative programs to increase safety belt and child safety seat use within identified Safe Communities. Funds may be used for training, community materials development or innovative uses approved by OP program manager.

**Self-sufficiency:** Communities will maintain their collaborative efforts in a continued Safe Communities concept.

**Evaluation:** Administrative evaluation of planned activities. Impact evaluation of programs implemented by Coalition.

**Activity: 03-02-04-OP OPERATION TEEN BUCKLE DOWN – Occupant Protection Activities**

**Problem:** Young drivers fail to wear seat belts on a regular basis and need to develop this habit. With the increasing proportion of 15-20 year old drivers and their high crash rate, increased safety belt use has great potential for decreasing fatalities and serious injuries. State average is 55.5% for 16-25 year olds. Competition between schools and individual “needs” for material things are great motivators of this age group.

**Objective:** 1. Assist six community-wide programs during 2003.  
2. Achieve average safety belt use by targeted youth to 70 % (or a 25% increase locally).

**Resources:** \$30,000 for training and program materials. Communities should seek out local donations of prize items.

**Self-sufficiency:** This is one-time funding.

**Evaluation:** Local Pre/Post observational surveys and post KAB Surveys.

**Activity: 03-02-04-OP CHURCH CHALLENGE – Occupant Protection Activities**

**Problem:** Communities must look to opinion leaders such as the political, business and faith communities if they are to change public knowledge, attitudes and behaviors with regard to safety. In some minority populations, the church is the most important social institution and can have a greater impact on their communities than traditional safety advocates. A “church challenge” was successfully implemented in Inner City Milwaukee, and this is the model that will be provided to successful grant applicants.

**Objective:** Assist one consortium of opinion leaders to produce a community-wide competition for belt use by churches during 2003. Support occupant protection activities for Safe Communities Coalitions. Communities must do or have done the Traffic Safety Assessment.

**Resources:** \$30,000 for training, community materials development, printing, mailing or innovative uses approved by OP program manager.

**Self-sufficiency:** This is a one-time grant.

**Evaluation:** Administrative evaluation of planned activities. Survey results of programs implemented by Coalition.

**Activity: 03-02-04-OP ELEMENTARY and SECONDARY SCHOOLS – Occupant Protection Activities (Can be combined with youth alcohol and Ped/Bike School-based activities - 03-09-04 and 03-41-07)**

**Problem:** Teens and young adults don't buckle up consistently and some don't buckle at all. Schools can counter this by introducing and reinforcing the habit as an integrated portion of their school educational and social experience. Students may be involved in Safe Communities assessments and coalition building, belt use or other safety behavior surveys, program development and other empowering activities related to highway safety.

**Objective:** Provide funding for 4-6 School systems and reach 4,000 students with the program during 2003.

**Resources:** \$20,000 for training, printing, materials.

**Self-sufficiency:** Schools will be able to continue using the materials, projects and curricula developed locally.

**Evaluation:** Administrative evaluation of planned activities. Local evaluation of projects, materials and curricula.

## STRATEGY -- ENFORCEMENT

### Activity: 03-02-05-OP CLICKIT, WHY RISK IT - sSTEP Program

**Problem:** Only 68.7% of Wisconsin motorists wear their safety belts. The President has issued an initiative to increase safety belt use to 90% by 2005. In order to achieve this with a secondary law, public information and enforcement are an important factor if WI is going to reach these goals. Wisconsin's multi-year campaign will be integrated with the 2003 Buckle-Up, America Initiative, rather than run parallel to it.

**Objective:** 1. Increase safety belt use to 68% by the end of CY 2003.  
2. Maintain sSTEP Wave concept of enforcement, integrating Buckle-Up America initiative.

**Resources:** \$200,000 for small equipment grants and overtime to 75 - 100 LE agencies in return for performance of sSTEP Enforcement Waves.

**Self-sufficiency:** Agencies will be required to pay for officer regular time to do the sSTEP Waves. They will be encouraged to continue the concept after the grant period is completed.

**Evaluation:** Administrative evaluation. Local surveys to determine if safety belt usage has increased.

### Activity : 03-02-05 OP LAW ENFORCEMENT LIAISONS

**Problem:** The dissemination and sharing of information with law enforcement is a formidable task, especially with statute changes, improvements, new technology and improved program ideas. Getting the information to law enforcement personnel specifically is a challenge, best addressed by delivery through one of their own.

**Objective:** Continue support of three former law enforcement officers to help promote law enforcement training courses and impaired driving-related activities with law enforcement agencies, businesses and community groups

**Resources:** \$ 75,000 for salary and fringe, travel, meals and lodging.

**Self-sufficiency:** None.

**Evaluation:** Administrative – quarterly surveys of promotional efforts describing who, what, where, when of efforts made, and results of the efforts.

## STRATEGY -- EVALUATION – Surveys & Studies

### Activity: 03-02-06-OP OBSERVATIONAL SURVEY – SAFETY BELTS

**Problem:** Longitudinal data on safety belt and child safety seat use are required by the federal government and for state program design and analysis. The last observational survey took place in 2001. The data were used for program planning and evaluation.

**Objectives:** 1. Review and revise survey protocol. Determine what questions need to be answered by the survey, what data need to be gathered to answer those questions and most efficient means of gathering data.



2. Perform statewide survey during 2003, identifying vehicle type, driver/passenger, age, gender
3. Analyze and publish survey results by November, 2003.

**Resources:** \$75,000. Contract for survey and analysis.

**Self-sufficiency:** This is a highway safety program management responsibility.

**Evaluation:** Did the survey answer the questions with valid information? Was it cost beneficial? Did BOTS or other program staff use the data in program development/ analysis?

**Activity: 03-02-09-157OP OBSERVATIONAL SURVEYS – SAFETY BELTS  
Section 157 Incentive Funded**

**Problem:** Longitudinal data on safety belt and child safety seat use are required by the federal government and for state program design and analysis. The last observational survey took place in 2001. The data were used for program planning and evaluation.

- Objectives:**
1. Review and revise survey protocol. Determine what questions need to be answered by the survey. Determine what data need to be gathered to answer those questions. Determine most effective and efficient means of gathering data.
  2. Perform statewide survey during 2003, identifying vehicle type, driver/passenger, age, gender
  3. Analyze and publish survey results by November, 2003.

**Resources:** \$120,000. Contract for survey and analysis.

**Self-sufficiency:** This is a highway safety program management responsibility.

**Evaluation:** Did the survey answer the questions with valid information? Was it cost beneficial? Did BOTS or other program staff use the data in program development/ analysis?

**Activity: 03-02-09-157OP EVALUATION SURVEY – Section 157 Incentive  
Funded**

**Problem:** Longitudinal data on safety belt and child safety seat use are valuable in targeting public information materials and social marketing campaigns. Multiple surveys of knowledge, attitudes and behaviors, including targeted surveys, are useful in developing media campaigns and program activities.

- Objectives:**
1. Review public information materials. Determine what questions need to be answered by the survey. Determine what data need to be gathered to answer those questions. Determine the most effective and efficient means of gathering data.
  2. Perform statewide survey during 2003, identifying which materials and strategies were most successful in affecting attitudes and behaviors.
  3. Analyze and publish survey results by November, 2003.

**Resources:** \$60,000. Contract for survey and analysis.

**Self-sufficiency:** This is a highway safety program management responsibility.

**Evaluation:** Did the survey answer the questions with valid information? Was it cost beneficial? Did BOTS or other program staff use the data in program development/ analysis?

## B. CHILD PASSENGER SAFETY

### STRATEGY -- EMPOWERMENT – Child Passenger Safety

#### Activity: 03-02-07-OP WINS SUPPORT

**Problem:** Close to 90% of child safety seats are used incorrectly. This is not the fault of the parent/guardian as instructions are not always easy to follow and can be confusing. With the large number of different child safety seats and different seat belt systems, it is hard to maintain the necessary information to answer questions from the public.

**Objective:**

1. Increase correct child safety seat use to 20% by 2003.
2. Provide staffing for an 800 phone number.
3. Maintain recall list of child safety seats.
4. Provide for free loan of Vince & Larry costumes.
5. Provide incentive items for the public to use.

**Resources:** \$95,000 for contractual services.

**Self-Sufficiency:** Cost of doing business. BOTS does not have staff or space to maintain these functions.

**Evaluation:** Administrative evaluation to determine how much the public uses these resources.

#### Activity: 03-02-07-OP WCPSA SUPPORT

**Problem:** Child Passenger volunteers through out Wisconsin need to have an organization that they can belong to. They do not have a method of receiving information and updates on child passenger safety issues. They do not have a resource for receiving materials or an opportunity to update their skills.

**Objective:**

1. Increase correct child safety seat use to 20% by 2003
2. Provide support for joint annual WCPSA/EMS-Children conference and information and updates to members.

**Resources:** \$5,000 for conference expenses, development of a newsletter, updating, printing, and distribution of Child Passenger Safety manual.

**Self-sufficiency:** Attendees will pay their own expenses to attend the conference and annual membership fees.

**Evaluation:** Administrative evaluation. Survey of conference attendees.

#### Activity: 03-02-11-J3 CHILD PASSENGER SAFETY FITTING STATIONS

**Problem:** More than 90% of child safety seats are not used correctly, even in well-educated and motivated communities. The use of child safety seats declines as children age. Parents can't find assistance in proper installation of child safety seats.

**Objective:**

1. To develop 5-10 Child Passenger Safety Fitting Stations following the Australian model.
2. To increase the correct use of child safety seats to 20% by the end of 2003.

**Resources:** \$25,000 one-time funding for materials, supplies and auditing stations.

**Self-sufficiency:** Once established, Fitting Stations will be responsible for maintaining materials such as locking clips, tethers, etc., and for maintaining certification of technicians.

**Evaluation:** Observational survey of correct use; annual audit of all fitting stations.

## **STRATEGY -- EDUCATION -- Training**

### **Activity: 03-02-08-OP CHILD PASSENGER SAFETY TRAINING**

**Problem:** Close to 90% of child safety seats are used incorrectly. This is not the fault of the parent/guardian, but is confusing and difficult. Seats are not always compatible with the vehicle, recalls may have been made, and parts may be missing from the seat are a few of the problems that exist.

**Objective:** Increase correct child safety seat use to 20% by 2003. By doing the following training:

1. Provide Certified Technician training to 75-100 practitioners., Include LE, EMS, & Fire Depts.
2. Provide for 3-5 Technician Instructor candidates to become certified instructors.
3. Provide 10 child safety seat check ups.

**Resources:** \$25,000 for instructor fees and expenses, participant and instructor manuals, child safety seats for classes, other instructional materials, and materials for check ups.

**Self-sufficiency:** Technicians and instructors would be required to maintain their own certification.

**Evaluation:** Administrative evaluation. At check-ups could do a 6 month follow up mailing with parents to see if they are using seat properly.

### **Activity: 03-02-12-J3 CHILD PASSENGER SAFETY TRAINING**

**Problem:** Close to 90% of child safety seats are used incorrectly. This is because fitting a seat to a car and a child to a seat is confusing and difficult. Difficulties arise because seats are not always compatible with the vehicle, recalls may have been made, parts may be missing from the seat, etc.

**Objective:** Increase correct child safety seat use to 20% by 2003. By doing the following training:

1. Provide Certified Technician training to 75-100 practitioners.
2. Provide for 3-5 Technician Instructor candidates to become certified instructors.
3. Provide 10 child safety seat check ups.
4. Include LE, EMS, & Fire Depts. In child safety seat training.

**Resources:** \$200,000 for instructor fees and expenses, participant and instructor manuals, child safety seats for classes, other instructional materials, and materials for check ups.

**Self-sufficiency:** Technicians and instructors would be required to maintain their own certification.

**Evaluation:** Administrative evaluation. Perform 6 month follow up mailing after check-ups to see if they are using seat properly.

**03-03****ALCOHOL and OTHER DRUGS (AOD) COUNTERMEASURES**

**Program Goal:** To decrease the number of alcohol- and drug-related motor vehicle deaths and incapacitating (A) injuries to 1,219 by 2003, to 1,023 by 2005 and to 845 by 2007.

The USDOT national impaired driving goals are to reduce the rate of alcohol-related highway fatalities per 100 million vehicle miles traveled to 0.53 by 2003 and to reduce alcohol-related fatalities to no more than 11,000 by 2005.

National Public Health Plan objectives for the Year 2010 are to reduce alcohol related deaths in motor vehicle crashes by 33 percent from 6.1 per 100,000 population to 4 per 100,000 population and to reduce alcohol-related injuries by 47 percent from 122 per 100,000 population to 65 per 100,000 population.

<b>ALCOHOL and OTHER DRUGS FUNDS 03</b>						
<b>Activity</b>	<b>Title</b>	<b>Fed</b>	<b>State</b>	<b>Local</b>	<b>Tot Prog</b>	<b>Loc Benefit</b>
03-03-01	Program Management	160,000	100,000	10,000	270,000	40,000
03-03-02	Saturation Patrols	390,000	5,000	97,500	492,500	390,000
03-03-03	Alcohol Community	200,000	5,000	50,000	255,000	200,000
<b>402 TOTAL</b>	<b>(AL)</b>	<b>750,000</b>	<b>110,000</b>	<b>157,500</b>	<b>1,017,500</b>	<b>630,000</b>
03-41-01	Alcohol PI&E	100,000	20,000	6,240	126,240	50,000
03-41-02	PI&E & Outreach	200,000	50,000	48,000	298,000	37,500
03-41-03	Drugs That Impair	42,000	5,000	90,000	137,000	30,000
03-41-04	Enforcement Training	150,000	5,000	288,000	443,000	45,000
03-41-05	Repeat Offender & ISP	190,000	2,000	355,000	547,000	220,000
<b>410 Total</b>	<b>(J8)</b>	<b>682,000</b>	<b>82,000</b>	<b>787,240</b>	<b>1,551,240</b>	<b>382,500</b>
03-03-04	Safe Ride Program C/O	300,000	1,000	10,000	311,000	300,000
03-03-06	Corridor/Community C/O	0	1,000	20,000	21,000	0
03-03-08	Evaluations C/O	100,000	500,000	100,000	700,000	25,000
03-03-09	Alcohol Prosecution C/O	108,000	10,000	10,000	128,000	108,000
<b>164 Trans</b>	<b>(164AL)</b>	<b>508,000</b>	<b>512,000</b>	<b>140,000</b>	<b>1,160,000</b>	<b>433,000</b>
03-43-03	21-34 y/o Demo grant	298,221	10,000	100,000	408,221	100,000
<b>403 Total</b>	<b>(DX)</b>	<b>298,221</b>	<b>10,000</b>	<b>100,000</b>	<b>408,221</b>	<b>100,000</b>
State 568	Pre-trial Intervention	0	779,400	0	779,400	0
State 531	Safe Ride Programs	0	137,570	0	137,570	0
<b>State Total</b>	<b>(531 and 568)</b>	<b>0</b>	<b>916,970</b>	<b>0</b>	<b>916,970</b>	<b>0</b>
<b>TOTAL</b>	<b>ALL FUNDS</b>	<b>2,238,221</b>	<b>1,630,970</b>	<b>1,184,740</b>	<b>5,098,931</b>	<b>1,545,500</b>

## PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

### A. MAGNITUDE and SEVERITY of the IMPAIRED DRIVING PROBLEM

Impaired driving is the most frequently committed violent crime in America. Every 33 minutes, someone in this country dies in an alcohol-related crash.

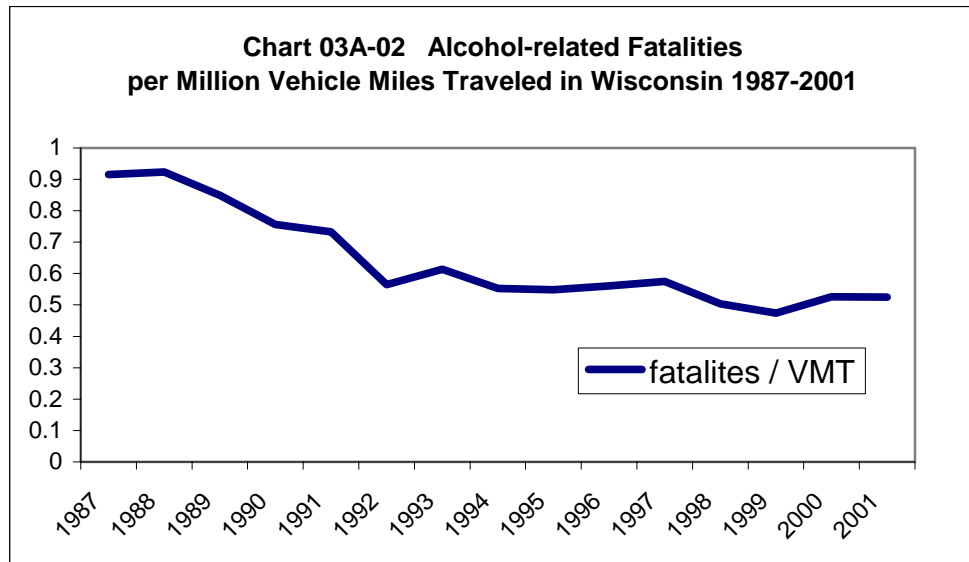
Alcohol is the single greatest driver contributing cause of fatal crashes in Wisconsin. On the average, one person was killed or injured in an alcohol-related crash every 76 minutes or 1-1/4 hours on Wisconsin roadways in 2000. Even small amounts of alcohol can affect transportation-related performance.

<b>Table 03A-01: ALCOHOL CRASHES 1994-1996; 1999-2001</b>									
<b>Alcohol Crashes</b>	1994	1995	1996	1998	1999	2000	<b>2001</b>	94-96 3-yr av	99-01 3-yr av
Alcohol-Related Crashes	10,279	10,170	9,338	8,475	8,446	9,088	8,675	9,929	8,736
Alcohol-Related Fatalities	278	282	295	282	270	293	304	285	288
Alcohol-Related Injuries	8,039	7,890	7,496	6,850	6,563	6,827	6,586	7,808	6,655
Alcohol-Related A-Injuries	1,853	1,692	1,560	1,383	1,331	1,354	1,319	1,702	1,334
Total K&A	2,141	1,974	1,855	1,665	1,601	1,657	1,623	1,987	1,625

Source: WisDOT Crash Database

The number and rate of alcohol-related crashes has trended downward for nearly 20 years both nationally and in Wisconsin. A recent National Highway Traffic Safety Administration (NHTSA) study indicates that alcohol-related fatalities in the US have declined by about one-third from 1982 to 2001.

Preliminary traffic death statistics released by the National Highway Traffic Safety Administration (NHTSA) show virtually no change in the number of alcohol-related traffic fatalities from the year 2000 to 2001. The percentage of alcohol-related traffic fatalities remained at 40 percent, and the number of people who died in alcohol-related crashes was essentially unchanged -- 16,653 in 2000 and 16,652 in 2001.



**Crashes:** In 1983, Wisconsin experienced 20,216 alcohol-related crashes. The number has decreased to 8,696 in 2001, a 57 percent decrease. See WisDOT's 2000 Alcohol Traffic Crash Facts, for detailed data.

In 2001, alcohol was a factor in 8,695 (7.1%) of all Wisconsin crashes and 39.6% of fatal crashes. In 2000, it was a factor in 9,096 (6.5%) of crashes and 37.5% of fatal crashes.

<b>Table 03A 03 -- WI DRINKING DRIVERS IN CRASHES 1996-2001</b>							
	1996	1997	1998	1999	2000	2001	3-Yr Av. 99-2001
Drivers in Crashes	9,381	8,609	8,444	8,491	9,135	8,702	8,776
Rate/1,000 Drivers in Crashes	40.8	39.6	39.9	38.8	39.0	41.4	40.0

**Deaths:** In 2001, alcohol was a contributing circumstance in 304 deaths; this represents 39.7 percent of all traffic fatalities. Alcohol-related fatalities have decreased by 27% since 1983, when there were 417 such fatalities. In 2001, Wisconsin experienced 0.53 alcohol-related fatalities per 100 million vehicle miles traveled and 14.24 alcohol-related fatalities per 100,000 population.

In 2001, of the 523 drivers who died in crashes, 450 were tested for alcohol and of those tested for alcohol, 163 (35.6%) were legally intoxicated (0.10 % AC or higher).

In 2001, 45 percent of all pedestrian fatalities and 27 percent of all motorcycle operators killed in crashes had an alcohol concentration of 0.10 % AC or higher.

**Injuries:** During 2001, 6,586 injuries were reported in alcohol-related crashes. This represents 11.3 percent of all crash injuries. Alcohol-related injuries have decreased by 54 percent since 1983, when there were 14,282 such injuries.

Alcohol Crash Costs: In Wisconsin in 2000, alcohol related crashes cost about \$512 million. This represents about 19 percent of the estimated total economic loss due to motor vehicle crashes in Wisconsin. The societal costs of alcohol-related crashes in Wisconsin averaged \$0.70 per drink consumed. People other than the drinking driver paid \$0.40 per drink for these crashes. Alcohol-related crashes accounted by an estimated 13% of Wisconsin's auto insurance payments. Reducing alcohol-related crashes by 10% would save \$60 million in claims payments and loss adjustment expenses annually. (NHTSA, 2001)

#### B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

Alcohol Consumption in Wisconsin/Cultural Norms: Wisconsin leads the nation in the percentage of adults who drink alcohol, according to a study at the Centers for Disease Control and Prevention in Atlanta. In 1982, Wisconsin was number one nationally in beer consumption per capita, but dropped to seventh by 2000. (Beverage Industry Sources quoted by "Beer Drinkers of America," April 1994; Wisconsin Alcohol Traffic Facts Book 2000)

The 1999 Behavioral Risk Factor Survey (BRFS) released in May, 2002, that Wisconsin led all states in the percentage of adults (19.6%) who said they have had five or more drinks in a single sitting in the last month, or "binge drinking". The results of the drinking survey came as no surprise to most Wisconsin residents. The state led the nation in drinking in the last two BRFS studies, as well.

Alcohol Concentration (AC): Even at ACs as low as 0.04 percent, alcohol affects driving ability and crash likelihood according to "Zero Alcohol," Transportation Research Board Special Report #216. The probability of a crash begins to increase significantly at 0.05 AC and climbs rapidly after about 0.08 percent. For drivers with AC's above 0.15 percent on weekend nights, the likelihood of being killed in a single-vehicle crash is more than 380 times higher than it is for non-drinking drivers. Wisconsin had 11 percent of surviving drivers in fatal crashes at BAC over .10, while the National average was 9%. *NHTSA Traffic Safety Facts* (1999). The State Medical Society of Wisconsin has lobbied the Legislature for a lowered blood alcohol per se level for many years.

Gender: In Wisconsin crashes involving men are much more likely than those involving women to be alcohol-related. Among fatally injured male drivers, 85 percent of those tested had AC's of 0.10 percent or more in 2001. The percentage for women was 69. Alcohol involvement above a 0.10 AC for fatally injured drivers is highest for men age 35-44.

Age: Male drivers ages 25-44 constitute the majority of fatally injured drivers with high ACs; this group has shown only a modest decline since the 1980s in the percentage of fatally injured drivers with high ACs.

<b>Table 03A-04 Wisconsin Driver Age and Crash Involvement 2001</b>								
<b>Age</b>	<b>Population</b>	<b>% Total</b>	<b>Number Licensed</b>	<b>% Total</b>	<b># in Crashes</b>	<b>% Total</b>	<b>Drinking Drivers</b>	<b>% Total</b>
10-14	403,074	7.5%	0	0%	188	0.1%	7	0.1%
15-19	407,195	7.6%	222,923	5.8%	29,903	14.2%	886	10.2%
20-24	357,292	6.7%	343,995	9.0%	27,455	13.1%	2,096	<b>24.0%</b>
25-34	706,168	<b>13.2%</b>	675,336	17.6%	37,533	<b>17.9%</b>	2,231	<b>25.6%</b>
35-44	875,522	16.3%	827,257	21.6%	37,961	18.1%	2,042	23.4%
45-64	1,190,047	22.2%	1,207,031	31.5%	42,912	20.4%	1,285	14.7
65-84	696,928	11.3%	516,220	13.5%	14,359	6.8%	144	1.7
85+	95,625	1.8%	42,805	1.1%	1,248	0.6%	8	0.1

Source: WI Traffic Crash Facts

While the number of very young people involved in crashes is low, it is symptomatic of a systemic, cultural problem of widespread availability of liquor and liquor-related community or interest group activities. While the 25 to 44 year old group is greatly disproportionate in both general and alcohol related crashes, no age group is exempt. Wisconsin residents drink and drive at all ages.

<b>Table 03A-05 -- TREND -WI DRINKING DRIVERS IN CRASHES BY AGE: 1996-2001</b>						
Drivers in crashes by age*	1996	1997	1998	1999	2000	2001
16-18 yr. Olds	17.3	18.3	20.2	19.5	19.7	23.7
19-20 yr. Olds	44.9	40.7	44.2	49.4	45.9	450.5
<b>21-34 yr. Olds</b>	<b>65.1</b>	<b>63.7</b>	<b>63.5</b>	<b>63.0</b>	<b>61.6</b>	<b>67.7</b>
35 & older	36.3	35.7	36.1	34.0	35.9	35.3

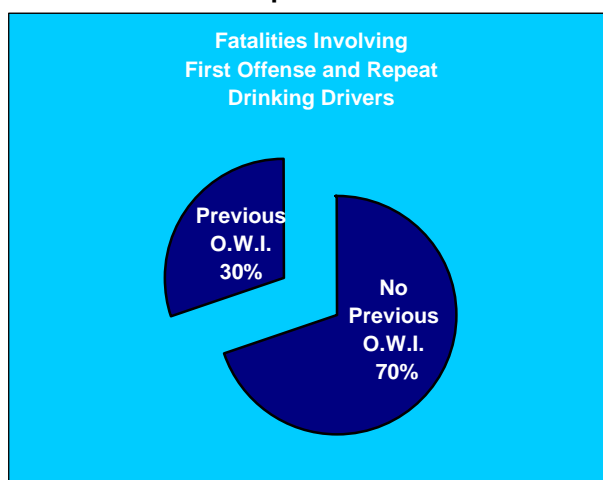
Source: Wisconsin 2000 Traffic Crash Database

This table demonstrates two problems; first that nearly two-thirds of 21-34 year old involved in crashes are drinking, and second that while this percent is falling (slowly), the percent of teen-age and youthful drivers has trended up over the same period. The highest drinking driver rate continues to be for the 21-34 year old age group. The second highest rate is for 19-20 year olds at an average of 43 drinking drivers per 1,000 drivers in the age group in crashes.

Prior Impaired Driving Arrest: Two-thirds of drinking drivers involved in fatal crashes in Wisconsin had no prior OWI convictions. In Wisconsin for the years 1991-2000, 13,871 drivers who had been drinking were involved in crashes that resulted in a fatality or an incapacitating injury. In 2000, of the 1,214 drivers involved in such crashes, 824 (68%) had not been convicted of an OWI since January 1, 1989 when long-term record keeping began. Interventions historically have been based on number of prior arrests, but most drivers in fatal alcohol crashes never have a chance to be entered into the system.



**Graph 03A-06**



Source: DMV Crash Database; FARS

Time of Day/Day of Week: Alcohol involvement in crashes peaks at night and is higher on weekends than on weekdays. In 2001, among Wisconsin drivers of all types of motor vehicles killed between 1 pm and 6 am, 85% of those tested had AC's at or above 0.10. During other hours this percent drops to 74%. Nationally 40 percent of fatally injured drivers on weekends (6 pm Friday to 6 am Monday) and 53% of those killed in weekend nighttime crashes had ACs of 0.10 percent or more in 2000. During weekdays (6 am Monday to 6 pm Friday), the proportion drops to 21 percent but rises to 41% for weekday nighttime crashes.

## Drugged Driving

Frequency: Only limited data are available on the frequency of drugged driving. In part, this is because many drug-impaired drivers are never detected. Secondly, many drug users also drink. So when they are detected, they may be arrested and statistically reported as being only alcohol impaired. In addition, due to economic and other factors, crash-involved drivers are seldom chemically tested for drugs other than alcohol. However, some research suggests that impairment by drugs other than alcohol is a considerable problem.

Polydrug Use: Drug abusers routinely take combinations of drugs simultaneously. This behavior, called polydrug use, is so common in some areas the practice may be more prevalent than single drug use. One of the most frequent combinations involves alcohol with virtually any other drug. In a 1985 study, the Los Angeles Police Department tested 173 drivers arrested for being under the influence of drugs. Of these 81, or 47%, had consumed alcohol and some other drug in combination. Anecdotally, this is the Manitowoc experience, illegal drug use is done in combination with alcohol use and high alcohol use. In many instances, toxicological tests are not being conducted for drugs.

Other studies have indicated that drivers previously arrested for drug offenses pose a greater traffic safety risk than others. A report from the California Department of Motor Vehicles, *The Relationship Between Drug Arrests and Driving Risk*, concluded that drug arrestees are involved in

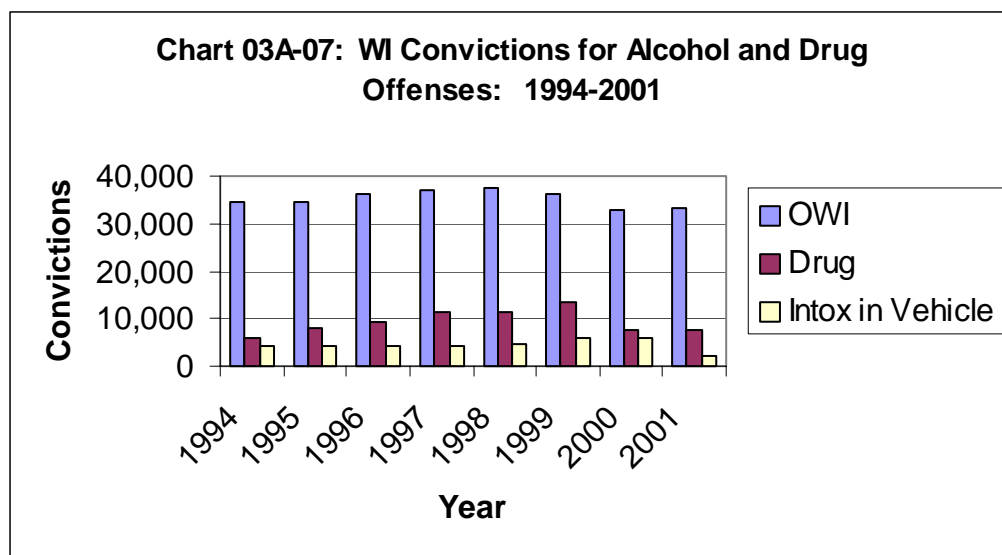
nearly one and a half times as many serious traffic crashes as the general population, they commit a high number of traffic violations, and crash investigations have found them to have a significantly greater culpability than the general driving population.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

The 37% drop in alcohol-related deaths from 1982 to 1999 is generally attributed to:

- 1) Stronger laws;
- 2) Tougher enforcement and adjudication;
- 3) More effective public information and education; and
- 4) Change of attitudes toward drinking and driving.

Strategy: Enforcement of Impaired Driving: In 2001 in Wisconsin, 42,942 or 5% of all traffic convictions, were for alcohol or other drug-impaired driving offenses. Operating While Intoxicated (OWI) convictions rose gradually to a high of 37,130 in 1986, declined to 33,056 in 1989, rose again to a high of 38,056 in 1998, but have declined since then and totaled 33,164 in 2001, about the 1989 level.



One of the fastest growing offenses in Wisconsin is Driving After Revocation and Suspension, which increased dramatically since 1990. In 2001, 28,099 convictions for operation after revocation and 19,620 convictions for Operation while registration suspended were entered on driver records. A significant number of these offenders have lost their license as a result of impaired driving convictions but are still driving on Wisconsin's roads. In Wisconsin counties, 15% of those found guilty of OWI do not follow through and receive their assessments or follow their "Driver Safety Plan" as ordered by the courts. This continues in a large part due to lack of follow up on judicial orders and findings of contempt or serving of bench warrants to insure compliance. These increases are occurring at a time that traffic law enforcement is competing with increased calls for service and increased pressure for criminal enforcement due to drug and gang activities.

## Strategy – Training of Law Enforcement Officers

In the early 1980's, when police officers arrested an obviously impaired driver and a breath test revealed low or no alcohol, they naturally suspected there might be drug use. But there was little they could do. Seeking a solution, a small group of Los Angeles police officers created the Drug Evaluation and Classification (DEC) Program and eventually developed a reliable procedure to detect drug impaired drivers.

Word of LAPD's program soon came to the attention of the National Highway Traffic Safety Administration (NHTSA). NHTSA concluded the program had promise and conducted research which showed the method was valid. From there a national curriculum was developed and pilot tested with successful results. NHTSA formed a partnership with the International Association of Chiefs of Police (IACP) with a goal of expanding the DEC nationwide and institutionalizing the program.

The program began rapidly spreading after Congress appropriated multi-year funds to support Drug Recognition Expert (DRE) training and promote DEC program expansion. As the program matured, NHTSA passed coordination on to its regional offices, and the states now assumed greater responsibility for the management and expansion of their own programs. Important precedent-setting court cases were tried and won. By fall 1995, more than half the states and the District of Columbia had adopted the DEC program, and the IACP agreed to take on program coordination.

The DEC program has been remarkably successful in the critical areas of developing and implementing the program, saving lives on our nation's highways, strengthening partnerships, gaining court acceptance, as well as achieving self-sufficiency and showing a solid return on investment.

In the most comprehensive study of the DEC program completed to date, the *Drug Recognition Expert Validation Study* found that "when the suspect admitted use of a drug, the DRE identified the drug and it was found in the specimen approximately 90 percent of the time." Other significant findings of the 1994 study were:

- The DRE program is a valid method for identifying and classifying drug-impaired drivers.
- Certified DREs recognize drug impairment and identify drug(s), by category, which cause impairment.
- Observable signs and symptoms are associated with specific drugs.
- Monitoring DRE opinions and laboratory results will facilitate program management.
- The DRE program requires scientifically sound support by the laboratory.

In terms of safety objectives, it should be noted that the majority of the drivers evaluated in the validation study would not have been arrested without the evidence of impairment obtained by the DRE evaluation and corroborated by laboratory analysis.

Strategy: Public Information – Media Campaigns: Mass media can introduce broad health promotion concepts and accurate information on traffic measures; i.e., mass media can provide information to those ready, willing and able to receive that information. In conjunction with other program elements, mass media may be able to achieve lasting attitudinal and behavior change. Some behavior changes have been demonstrated when media are combined with other community components. Ideally, the community program will consist of an integrated set of approaches involving mass communication, face-to-face program element, community action and small-scale education activities.

Education of the public and advocacy groups has helped enact legislation and transmitted knowledge about the provisions and penalties of laws in ways that increase their deterrent effect, and has generated public support for law enforcement programs.

Strategy: Community Empowerment - Changing Societal Norms and Community Attitudes: Americans agree that drinking and driving is a serious problem. Societal norms have changed. Fewer people are driving after drinking and more are getting caught when they do. Equally important, Americans support the strict enforcement of these laws and swift and fair sentencing for offenders.

The literature on OWI includes many “lessons” on dealing with the drinking driver. While experts in the field may disagree, the following list of suggestions from the experts seems to recur regularly. All come from the literature representing in-depth studies from diverse perspectives.

- **Multiple Strategies:** A variety of measures should be available to use on drunk driving offenders. The most appropriate ones should be used in combination. No one measure, or set of measures, is most effective on every offender.
- **Individual Assessment:** Sanctions and/or treatment and educations programs should be tailored for each offender. Virtually all the sources say that an assessment should be made of each offender.
- **Monitoring:** All offenders should be closely monitored to ensure that they are meeting program requirements – and penalties for not meeting the requirements should be certain and immediate.
- **Hard-core Drinking Drivers:** Unfortunately, these “hard core” offenders are more likely to have alcohol problems and are less likely to be influenced by “rational” sanctions such as threats of fines or incarceration. For these offenders, the emphasis should be on incapacitation rather than on deterrence. Vehicle confiscation or immobilizations may be necessary.
- **Good records.** Without good records, offenders who have been caught driving drunk can pass themselves off as “first time offenders” several times. Many researchers

oppose allowing "first time" offenders to escape having the OWI conviction included on their records because doing so allows them to repeatedly be "first time" offenders.

*Excerpt from the Dieringer Research Group Database Search Report, Summary and Conclusions of the Evaluation of Alternatives to Incarceration for Repeat Drunk Drivers. (May, 2001)*

#### D. CRITERIA FOR PROJECT SELECTION

Alcohol Saturation Patrol Projects: Priority for funding will be given to the counties and communities: (1) with populations in excess of 10,000 and with many highway miles and other exposure factors; (2) with the most impaired driving crashes or impaired driving crashes with serious injuries and deaths and/or a high injury to death ratio; (3) demonstrating use of multiple sources of local data (crash, citation, conviction, CODES, e-codes, surveys) to identify local problems and deploy patrols; (4) demonstrating willingness to coordinate safety strategies, programs and funds; (5) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (6) with a plan to evaluate the effectiveness of targeted enforcement; and (8) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

Smaller communities may be eligible if they demonstrate problems of unusual scope or usual buy-in and effectiveness in past Highway Safety projects.

Alcohol Innovative Community Projects: Priority for funding will be given to counties and communities with (1) a truly "innovative" effort to reduce impaired driving that no one else is doing, showing thinking "outside the box," and replicable in other communities; (2) populations in excess of 10,000 with many highway miles and other exposure factors or a smaller community with a problem of unusual scope or unusual buy in and effectiveness in past highway safety efforts; (3) with the most impaired driving crashes or impaired driving crashes with serious injuries and deaths and/or a high injury to death ratio; (4) demonstrating willingness to coordinate safety strategies, programs and funds; (5) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (6) with a plan to evaluate the effectiveness of the innovation; and (7) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

## PROGRAM OBJECTIVES

**Objective 1: To decrease the number of driver fatalities with ACs of 0.10 or greater to 154 by the end of 2003.**

Performance Measure: Number of drivers killed and who were tested for AC whose test showed AC of 0.10 or greater. (We do not include A-injuries in this objective because the AC data for injured drivers is so incomplete that it under represents the problem).

Baseline: In CY 1994, 153 drivers killed and tested had an AC of 0.10 or greater. Three-year average for 1994-1996 was 154.

Status: In CY 2001, 163 drivers killed and tested had an AC of 0.10 or greater.

**Objective 2: To decrease the number of motor vehicle fatal and injury crashes that are alcohol- or drug-related to 240 and 4050 by the end of 2003. \*\***

Performance Measure: The annual number of motor vehicle fatal and injury crashes that are alcohol or drug-related. "Alcohol-related" is defined as "...a crash in which at least one driver, pedestrian or bicyclist involved was listed on the crash report or by the coroner as having drunk alcohol before the crash."

*\*\*Information about drug contribution to MV crashes is incomplete due to limited staff at the State Lab of Hygiene and a policy to limit testing to AC's above the legal limit.*

Baseline: In CY 1994, 253 MV fatal crashes were alcohol- or drug-related and 5,399 injury crashes were alcohol- or drug related. Three-year averages for 1994-1996 were 264 and 5,266

Status: In CY 2001, 271 MV fatal crashes were alcohol- or drug-related, and 4,711 injury crashes that were alcohol- or drug related. Three-year averages for 1999-2001 were 274 and 4,763.

## TABLE of STRATEGIES & ACTIVITIES

### A. GENERAL AOD PROGRAM

#### Strategy -- ADMINISTRATION

##### Activity: 03-03-01-AL PROGRAM MANAGEMENT

**Problem:** Short and long-term planning, coordination and management of the Alcohol and Drugged Driving Countermeasure Program and activities in Wisconsin.

**Objectives:** To achieve alcohol and youth alcohol program goals, employing the most effective and cost-effective strategies and activities.

**Activities:** Manage and administer alcohol and other drug safety program activities including analysis, grant applications, contract management and fiscal management of federal and state funded programs and projects, with assistance of 410 Advisory Committee, the DRE Oversight Committee and the SFST Advisory Committee. Manage and administer the Youth Alcohol Program coordinating all highway safety activities for Wisconsin youth, including the OJJDP Enforcing Underage Drinking Program, emphasizing prevention activities. Serve as a liaison to other DOT units, other state agencies, associations and organizations on alcohol highway safety issues.

**Resources:** \$160,000. \$153,000 for wage and fringe for Alcohol Program Manager and Youth Alcohol Program Manager, DP costs, M&S, training and travel, printing, postage. \$7,000 for Advisory Committee travel, meals and lodging.

**Self-sufficiency:** None.

**Evaluation:** Compare program objectives and planned activities with accomplishments and comment on reasons for success or lack thereof. Quarterly and final reviews and Annual report.

#### STRATEGY -- ENFORCEMENT

##### Activity: 03-03-02-AL ALCOHOL SATURATION PATROLS

**Problem:** Municipalities and counties in Wisconsin over-represented in alcohol related crashes and whose severity rates show the greatest potential for improvement. Thirty communities are targeted for alcohol selective enforcement efforts, i.e., Saturation Patrols.

**Objectives**

1. Provide Saturation Patrol coverage for more than 50% of the population of Wisconsin.
2. Reduce alcohol involvement in crashes by 5% within the participating communities.
3. Reduce the severity rate for alcohol related crashes by 5% within the participating communities.
4. Reduce alcohol involvement in crashes statewide by 3% through PI&E activities tied to activities in participating targeted communities and in voluntary participating communities.

**Activities:** Alcohol Selective Traffic Enforcement-scheduled in at least 30 community saturation patrols during FFY03.

**Resources:** \$390,000 for overtime wages, fringe, PI&E materials, M&S, postage.

**Self-sufficiency:** Voluntary participation in statewide effort is invited. Reports of effectiveness of Saturation Patrol countermeasure activity will be distributed statewide to encourage participation.

**Evaluation:** Quarterly progress reports and a final enforcement activity reports and a final administrative evaluation report. BOTS Data analysis Unit will perform overall program evaluation and determine if 50% of the state population was reached.

**Activity: 03-03-06-164AL CORRIDOR /COMMUNITY ALCOHOL PROGRAMS  
Section 164 funded**

**Problem:** In an era of diminishing federal resources and increasing devolution, local units of government and non-government organizations and individuals need the knowledge and tools necessary to address their alcohol-related traffic injury problems themselves.

**Objectives:** To continue 15 - 20 Corridor Safety/Safe Community alcohol focused coalitions in Wisconsin built on the model currently utilized in BOTS for these types of efforts.

**Activities:** The communities with the most severe alcohol-related crash problem have developed one-year Corridor Safety/Safe Community efforts. These began in 2001 and will continue into mid-2002.

**Resources:** \$0 (unless 2001 funds are not all expended) for wage, fringe, PI&E, training support and contractual services for remainder of one-year projects.

**Self-sufficiency:** Local funds expected to continue efforts if effective in creating safer communities.

**Evaluation:** Impact and outcome evaluation coordinated through WisDOT BOTS.

**Activity: 03-03-09-164AL ALCOHOL OFFENDER PROSECUTION Section 164  
funded**

**Problem:** In a time of almost continually changing OWI legislation in Wisconsin, it is critical that the prosecution of offenders is adequate, knowledgeable and up-to-date. Currently backlogs exist in certain WI counties causing significant delays in prosecuting OWI cases.

**Objectives:** To continue the implementation of the motion of the Joint Finance Committee to dedicate funding for additional OWI prosecution to improve OWI processing times.

**Activities:** Award one- or two-year grants for prosecutor positions in up to seven counties selected by the Wisconsin District Attorneys Association (WDAA) appointed committee.

**Resources:** \$108,000 for wage and fringe.

**Self-sufficiency:** Local funds expected to continue efforts if effective in creating safer communities.

**Evaluation:** Reporting by DA office of workload volume, conviction rates, etc.

## **STRATEGY -- EDUCATION - Training**

**Activity: 03-41-04-J8 LAW ENFORCEMENT SFST TRAINING – 410 funded**

**Problem:** Law enforcement recruit training in Wisconsin currently does not prepare officers properly for detecting and apprehending impaired drivers.

**Objectives:** Train 800 officers in SFST and 50 officers in mobile video camera technology

**Activities:** Funding support for training officers in SFST and Mobile Video Camera use

**Resources:** \$90,000 Instructor wages, printing, postage.

**Self-sufficiency:** Establish the NHTSA 24 hour SFST curriculum as part of the basic law enforcement recruit curriculum. Encourage vendors of MVC equipment to provide comprehensive training.

**Evaluation:** Count the number of officers trained in SFST and in MVC use, and survey law enforcement agencies to determine impact of training.



## STRATEGY -- EDUCATION – Public Information and Education

### Activity: 03-41-01-J8 PUBLIC INFORMATION/MEDIA CAMPAIGNS - 410 funded

**Problem:** The dissemination and sharing of information especially with statute changes, improvements, new technology and improved program ideas, getting the information into the hands of the appropriate recipients in a timely manner and conducting a program that will cause behavior change are all required.

**Objectives:**

1. Increase the knowledge level and subsequently change the behavior of Wisconsinites regarding impaired driving. To incorporate PI&E into AOD programming in accord with long-range PI&E plan.
2. To reach 25% of the target audiences with appropriate messages and change the behavior of 25% of them.
3. Work with the UW-Madison Business School to determine what program has the greatest degree of success in changing behavior in the 21-34 year old age group.

**Activities:**

1. Alcohol PI&E, Design: Task activities include funding the design of the campaign components. The analysis and evaluation of what might be effective in a campaign. \$50,000
2. Alcohol PI&E, Reproduction: Task activities include funding the production of the various campaign components created and reproducing as needed current PI&E materials as our stock is depleted, if material is still timely and appropriate \$50,000

**Resources:** \$100,000 Contractual services, printing, postage.

**Self-sufficiency:** Agencies and individuals will incorporate what they have learned within their programs and organizations.

**Evaluation:** BOTS PI&E evaluation Administrative- number of persons receiving messages. Impact: survey changes in KAB

### Activity: 03-41-02-J8 RESOURCE CENTER ON IMPAIRED DRIVING - 410 funded

**Problem:** The dissemination and sharing of information is a formidable task, especially with statute changes, new case law and ever changing technology. Getting correct information to judges, prosecutors, law enforcement, defense attorneys, legislators and educators is an ongoing challenge.

**Objectives:** Increase the knowledge level and awareness of judges, prosecutors, law enforcement, defense attorneys, legislators, and educators concerning impaired driving issues and policies.

**Activities:** Resource Center on Impaired Driving: Continue funding support for 2.0 FTE positions plus administrative support for the Resource Center at the UW Law School and their function of information sharing and dissemination.

**Resources:** \$200,000 Contractual services, printing, postage.

**Self-sufficiency:** Continue dialog with UW Law School on this subject.

**Evaluation:** Monitor reports to identify the use of the Resource Center and efforts made to disseminate the information to interested parties. Tracking efforts to increase the sharing of information.

## STRATEGY -- EMPOWERMENT – Community Programs

### Activity: 03-03-03-AL INNOVATIVE COMMUNITY ALCOHOL PROJECTS

**Problem:** The most effective behavior change programs occur at the local level, taking into account local needs, resources and cultural practice. The most successful programs also make use of multiple strategies and disciplines to approach not only the individual but also the context in which he or she operates. Communities wishing to improve their saturation patrol projects may apply for these funds. Current Highway Safety project selection process is not competitive and does not contain written criteria for funding. BOTS is reevaluating its funding process and needs to test its proposed Request for Proposal process for the 2004 Highway Safety Plan. The 2004 statewide RFP process will begin in November 2002, so the pilot tests must begin as early as possible in 2002. They will be funded under the 2003 Highway Safety Plan.

**Objectives:** 1. To support the development of community-based impaired driving programs.  
2. To fund one RFP Process "Innovative Community Alcohol Project" to permit evaluation of the process

**Activities:** Assist communities to develop multi-disciplinary, multi-strategy impaired driving programs with a sound evaluation component.  
With one partner community, study and document the development of a Request for Proposal process for competitive grants under the FY2004 Highway Safety Plan. Community will assist BOTS in developing documents for distribution statewide for each step in the process, and will then perform project activities funded during 2003.

**Resources:** \$200,000 for wage, fringe, travel, training, contractual services, M&S, etc. as justified in proposal.

**Self-sufficiency:** One-time effort.

**Evaluation:** Documentation of the process. Impact and outcome evaluations of local activities selected.

### Activity: PRE-TRIAL INTENSIVE SUPERVISION PROGRAM - State Approp. 568

**Problem:** Repeat OWI (Operating While Intoxicated) offenders continuing their impaired driving behavior.

**Objectives:** Maintain the five community ISP efforts attempting to change the behavior and lifestyle of repeat OWI offenders.

**Activities:** Maintain with shared state/ local ISP programs in Milwaukee, Kenosha, Marathon, Eau Claire and Waukesha.

**Resources:** \$779,400 state funding. Wage and fringe, contractual services, m&s , travel, and lab fees.

**Self-sufficiency:** This effort is self-sufficient. Funding is provided by the Wisconsin legislature.

**Evaluation:** BOTS is coordinating the evaluation effort that is required by the legislation that created the funding and prepares a report to the legislature every even year.

### Activity: 03-41-05-J8 PRE-TRIAL INTENSIVE SUPERVISION PROGRAM (ISP) - Federal 410 funded

**Problem:** Repeat OWI (Operating While Intoxicated) offenders continuing their impaired driving behavior.

**Objectives:** Implement 3 new community ISP efforts attempting to change the behavior and lifestyle of repeat OWI offenders.

**Activities:** Promote and implement 3 new ISP programs, assist to recognize their need and organizing the effort necessary to put a successful program in place. Continue to meet semi-annually with all program participants.

**Resources:** \$220,000 Wage and fringe, contractual services, m&s , travel, and lab fees.

**Self-sufficiency:** Federal funding is matched with state and local funding to initiate these programs.

**Evaluation:** BOTS is coordinating the evaluation effort that is required by the legislation that created the funding and prepares a report to the legislature every even year.

**Activity: 03-43-03-DX COMMUNITY DEMONSTRATIONS of 21-34 YEAR-OLD MALE DRIVER INTERVENTIONS 403 Funded**

**Problem:** Inability to change the behavior of 21-34 year old males who engage in excessive drinking and then drive impaired.

**Objectives:** To pilot test in four communities the research results obtained by the UW Business School through focus group testing and toolbox development during FFY2001.

**Activities:** Work with Watertown, Baraboo and two additional communities with diverse populations to determine what countermeasures in the Toolbox can be effective in changing behavior.

**Resources:** \$ 298,221 contractual service, training and evaluation.

**Self-sufficiency:** Local resources expected to continue effective community efforts

**Evaluation:** Substantive evaluation incorporated into the project design.

## STRATEGY -- EVALUATION

**Activity: 03-03-08-164AL EVALUATIONS –SEC 164**

**Problem:** Solutions to alcohol related highway safety problems are proposed or legislated without adequate evaluation as to the effectiveness of the proposal.

**Objectives:**

1. To support the unfunded legislative mandate to study alternatives to incarceration for Repeat OWI offenders.
2. To evaluate the 1993-2001 vehicle seizure/forfeiture activity.
3. To support the unfounded legislative mandate to evaluate Ignition Interlock Devices (iids's)
4. To evaluate the OWI law modifications implemented in the SFY02-03 budget as a result of Section 164

**Activities:** Hire consultants to develop and implement the necessary procedures to meet objectives, oversight by BOTS.

**Resources:** \$100,000 consultant fees, contractual service

**Self-sufficiency:** One-time efforts.

**Evaluation:** Administrative review of the evaluation efforts.

## B. OTHER DRUGS PROGRAMS

### STRATEGY -- ADMINISTRATION - Drugs That Impair Driving

**ACTIVITY: 03-41-03-J8 DRE PROGRAM SUPPORT 410-funded**

**Problem:** Law enforcement officers need to be trained in detection and recognition of individuals impaired by drugs other than alcohol. The detecting drugs in driver effort is growing and therefore needs more attention.

**Objective:** Support the DRE (Drug Recognition Expert) program in Wisconsin by contracting for program coordination.

**Activities:** DRE Program Coordination: Contract with DRE-trained former law enforcement officer for program oversight

**Resources:** \$50,000 Contractual services.

**Self-sufficiency:** One-time effort to assist the communities to implement a DRE Program.

**Evaluation:** Administrative: log/record community assistance and support of DRE program. Quarterly reports showing pros & cons of implementation of DRE program and suggestions for improvements.

## STRATEGY -- EDUCATION -- Training

### **Activity: 03-41-03-J8 LAW ENFORCEMENT DRUG DETECTION TRAINING - 410-funded**

**Problem:** Drugs are substances that change feelings, perceptions and behavior. Law enforcement officers need to be trained in detection and recognition of individuals impaired by drugs other than alcohol. Law enforcement recruit training in Wisconsin currently does not prepare officers properly for detecting and apprehending impaired drivers. School Administrators, teachers and nurses are not prepared for detecting drug abuse among the student population and how to spot drug paraphernalia.

**Objectives:**

1. Train 400 officers in the advanced SFST, Drugs That Impair Driving.
2. Train 25 officers as DREs (Drug Recognition Experts) and support instructor quarterly updates
3. Train 10 instructors in DITEP (Drug Impairment Training for Educational Professionals; they will deliver classes each in their communities before end CY2003

**Activities:** Funding support for training officers in advanced SFST- the Eight Hour Drugs That Impair Driving block; 4 hour DITEP train the trainer and twenty 2-day community DITEP training sessions.

**Resources:** \$10,000 for Advanced SFST-8 Hour Drug Block instructor wages, printing, postage; \$50,000 for DRE instructor wages, student lodging and meals, educational contractual services, printing, postage; \$5,000 for DITEP instructor wages, printing, postage.

**Self-sufficiency:** Expose more officers to the signs and symptoms of drug-impaired driving, and establish as a normal part of enforcement training in WI.

**Evaluation:** Count the number of officers trained and survey law enforcement agencies to determine impact of training; report the number of school administrators trained in DITEP.

**03-03Y**  
**YOUTHFUL DRIVERS, ALCOHOL and OTHER DRUGS**

**Program Goal:** To decrease the number of 15 to 24 year-old drivers and passengers killed (K) or seriously (A) injured in all traffic crashes to 2,057 by 2003, to 1,780 by 2005, and to 1,502 by 2007.

The National Highway Traffic Safety Administration's major impaired driving and youth objective for 2003 is to decrease drug-impaired driving, supporting the recommendations identified in the Initiative on Drugs, Driving and Youth.

Healthy People 2010 national public health goals include decreasing the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol to 30 percent.

<b>YOUTHFUL DRIVERS, ALCOHOL and OTHER DRUGS FUNDS 03</b>						
<b>Activity</b>	<b>Title</b>	<b>Fed</b>	<b>State</b>	<b>Local</b>	<b>Tot Prog</b>	<b>Loc Benefit</b>
03-41-06	Youth PI&E	73,000	40,000	100,000	213,000	35,000
03-41-07	Youth Community	175,000	55,000	97,000	327,000	175,000
03-41-08	Young Adult-Community	36,000	36,000	25,000	97,000	36,000
<b>410 Total</b>	<b>(J8)</b>	<b>284,000</b>	<b>131,000</b>	<b>222,000</b>	<b>637,000</b>	<b>246,000</b>
03-44-01	OJJDP Youth Community	592,054	2,000	25,000	619,054	309,527
03-44-02	OJJDP Youth Enforcement	80,000	45,000	0	125,000	0
03-44-03	OJJDP Youth Outreach	20,000	66,000	97,000	183,000	20,000
<b>USDOJ Tot</b>	<b>(JX)</b>	<b>692,054</b>	<b>113,000</b>	<b>222,000</b>	<b>927,054</b>	<b>385,777</b>
<b>TOTAL</b>	<b>ALL FUNDS</b>	<b>976,054</b>	<b>244,000</b>	<b>444,000</b>	<b>1,564,054</b>	<b>631,777</b>

**PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION**

**A. MAGNITUDE and SEVERITY of the YOUTHFUL DRIVER CRASH PROBLEM**

Motor vehicle crashes are the leading cause of death for young people 15 to 20 years of age. The Center for Disease Control and the National Institute on Alcohol Abuse report that alcohol is a factor in the four leading causes of death among persons ages 20 to 24: these are motor-vehicle crashes, unintentional injuries, homicide and suicide. The Century Council reported that youth under 21 alcohol-related fatalities were 4.0 deaths per 100,000 population in 2000.

Young people can be divided into distinct age groups for analysis of their involvement in motor vehicle crashes and for the development of countermeasure and prevention strategies; Teen Drivers, ages 15-19 years, in high school, post-secondary school or entry jobs, Youthful Drivers, ages 20-24 years, in post-secondary schools or jobs, and

Young Adult Drivers, ages 21-34 years, working, and constituting the largest proportion of high-risk drivers.

<b>TABLE 03Y-01 - Young WI Vehicle Occupants Killed/ Injured - 2001</b>									
<i>(Drivers and Passengers in Passenger Cars and Light Trucks)</i>									
Cohort	Age	WI Pop 2000	% Pop	Killed 2001	%Tot	Injured 2001	%Tot	A Injuries	%Tot
School Age*	10to14	403,074	7.5%	10	1.6%	1,613	3.1%	123	2.7%
Teens	15to19	407,195	<b>7.6%</b>	82	<b>10.7%</b>	9,900	<b>19.1%</b>	921	<b>15.8%</b>
Youth	20to24	357,292	<b>6.7%</b>	90	<b>11.7%</b>	7,492	<b>14.5%</b>	686	<b>15.3%</b>
Young Adult	25to34	706,168	13.2%	94	15.2%	8,890	17.2%	731	16.3%

Source: DOA Population Lab, 2001 WI Crash Database

While teens ages 15 to 19 represent only 7.6 percent of Wisconsin's population, they represent 10.7 % of those killed and 15.8% of those sustaining incapacitating injuries in crashes. This disproportion is even greater for 20 to 24 year olds who make up only 6.7% of the population but are killed at nearly twice that rate.

<b>Table 03Y-02 Wisconsin Driver Age and Crash Involvement 2001</b>								
Age	Population	% Total	Number Licensed	% Total	# in Crashes	% Total	Drinking Drivers	% Total
10-14	403,074	7.5%	0		188	0.1%	7	0.1%
15-19	407,195	7.6%	222,923	5.8%	29,903	14.2%	886	10.2%
20-24	357,292	6.7%	343,995	9.0%	27,455	13.1%	2,096	24.0%
25-34	706,168	13.2%	675,336	17.6%	37,533	17.9%	2,231	25.6%
35-44	875,522	16.3%	827,257	21.6%	37,961	18.1%	2,042	23.4%

Source: WI Traffic Crash Facts

A smaller (5.7%) proportion of 15-19 year olds are licensed than would be expected by their representation in the population (7.6%), but they are involved in a disproportionately large proportion (14.2%) of all crashes and are also disproportionately represented in drinking drivers in crashes (10.2%). However, the disproportionate representation of 20-24 year olds is even greater. While only representing 6.7 percent of the population and 9.0 percent of licensed drivers, 20-24 year olds are involved in 13.1 percent of crashes and constitute 24.0 percent of drinking drivers.

<b>Table 03Y-03 -- Percent WI Drinking Drivers in Crashes by Age: 1996-2001</b>						
Drivers in crashes by age*	1996	1997	1998	1999	2000	2001
16-18 yr. Olds	17.3	18.3	20.2	19.5	19.7	23.7
19-20 yr. Olds	44.9	40.7	44.2	49.4	45.9	50.5
21-34 yr. Olds	65.1	63.7	63.5	63.0	61.6	67.7

Source: Wisconsin 2001 Traffic Crash Facts

In 2001, more than 50 percent of 19-20 year olds who were in crashes had been drinking, and almost 70 percent of the 21-34 year old who were in crashes had been drinking. No downward trend in crash involvement is apparent for the 16-18 year olds and the 19-20 year olds over the past five years.

The following table shows that no downward trend in deaths and injuries can be seen for 16-18

year olds and the trend for 19-20 year olds has also been up. The other age groups display a modest downward trend, with the strongest downward trend in the 25-34 year old group.

<b>Table 03Y-04 Persons Killed or Injured in Alcohol-Related Crashes by Age 1994-2001</b>								
<b>Age</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2000</b>
Under 10	184	179	146	183	182	142	103	126
10-15	226	248	206	216	205	211	188	189
16-18	725	628	647	612	703	658	637	686
19-20	598	565	580	520	569	616	626	589
21-24	1,447	1,340	1,220	1,133	1,114	1,138	1,219	1,244
25-34	2,463	2,357	2,238	1,912	1,760	1,649	1,679	1,584
<i>Source: Wisconsin Alcohol Traffic Crash Facts</i>								

**TEEN DRIVERS** (15-19 Years Old): In 2001, while Teen Drivers (ages 15-19) belonged to a population cohort of 401,026, or 7.8% of the Wisconsin population, 82 (13.2% of all deaths) of them died and 9,900 (19.1% of all injuries) were injured in motor vehicle crashes on Wisconsin roadways.

54 public high schools and 2120 students participated in the Wisconsin Youth Risk Behavior Survey (YRBS) conducted by the Department of Public Instruction in the spring of 2001. The YRBS reported some disturbing trends. The proportion of students who reported having at least one alcoholic drink in the 30 days preceding the survey increased from 48 percent in 1993 to 54 percent in 2001 and the proportion of students who reported having five or more drinks at one time in the 30 days preceding the survey increased from 29 percent in 1993 to 34 percent in 2001.

Thirty-six percent of students reported riding with a driver who had been drinking alcohol at least once in the past 30 days, and 30 percent of high school seniors reported driving after drinking alcohol at least once in the past 30 days. In the most recent (1999) national YRBS, 33 percent rode with a drinking driver and 13 percent reported driving after drinking.

On the basis of miles driven, teenagers are involved in three times as many fatal crashes as driver in general. During 2001, one in every 518 drivers ages 16-19 involved in a crash was killed. Since 1989, for two thirds of all teens who died in a crash, it was their first (and last) crash. This group contains inexperienced drivers, and all are under the legal drinking age. The rate that young people died in alcohol-related crashes across the U.S. reached a low in 1998, when nine out of every 100,000 youth ages 15-20 died in a crash where a driver or non-occupant had been drinking. This reduction occurred primarily because the youth population increased by over a half million while the number of fatalities remained relatively stable.

**YOUTHFUL DRIVERS** (20-24 Years Old): In 2001, while Youthful Drivers (ages 20-24) constituted a population cohort of 357,292, or 6.7% of the Wisconsin population, 90 died (14.5% of all deaths) and 7,492 were injured (14.5% of all injuries) in motor vehicle crashes on Wisconsin highways. Thus they are more than twice as likely to be in crashes as expected by their numbers. This group contains legal but inexperienced drinkers who get behind the wheel. More 21 year olds died in alcohol-related crashes than any other age. Twenty-one to twenty-four year olds are a challenging group to address for behavior change, especially for drinking and driving behaviors.

The binge drinking begun in high school is often consolidated during college years, whether or not they have access to motor vehicles during this period of their lives.

<b>Table 03Y-05: 21-26 Year-Old Had Been Drinking Drivers in Crashes 1999-2001</b>					
Age	Severity	1999	2000	2001	1999-2001 Average
21-26	In Crash	2,002 (23%)	2,252 (25%)	2,269 (26%)	2,174 (24.7%)
	Killed or A injured	383 (24%)	364 (21%)	362 (22%)	369 (22.3%)
	Driver 0.10 AC or more	52%	50%	48%	50%
All Ages	In Crash	8,491	9,135	8,702	8,776
	Killed or A injured	1,601	1,657	1,623	1,627
	Driver 0.10 AC or more	32%	30%	31%	30%

Source: WI Crash Facts

**YOUNG ADULT DRIVERS** (21-34 Years Old): Most research and statistics combine this age group with the upper age group of 27-34 year olds. The entire population of 21-34 year olds represents thirty percent of the nation's licensed drivers and sixty percent of the nation's college population. Very little impact has been made with young adults over the legal drinking age despite many national programs targeting them.

Extensive focus group findings from throughout Wisconsin indicate that the most likely person to drive after excessive drinking is a 21-to-34 year-old single male, working a blue-collar job, with a high school education or less, who most often drinks beer. He also drinks heavily with friends in bars, feels safe drinking 8 to 12 drinks and then driving, often "assigns" the least drunk person to be the designated driver, socialized with groups of friends and need to fit in, values masculinity and feels immortal. He drinks to socialize, to overcome inhibitions, to increase his confidence to have a good time and because it's the thing to do. His car is important because it gives him a feeling of control, it keeps the option open of taking a woman home and it is part of his identity. These single young men like good times, women, sports, their vehicles and activities in which alcohol is part of the action.

#### B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

Age and Inexperience: Technical experience, good judgment and experience are all needed to make the many continuous decisions that constitute safe driving behavior. As age and driving experience increase, crash involvement decreases. The likelihood of a law enforcement officer noting driver possible contributing circumstances (PCC) on the corresponding MV4000 (crash report form) also decreases with the age of the driver involved. Among the 210,193 drivers of all ages involved in crashes on Wisconsin's roads during the calendar year 2001, 99,016, ( or 47%) of them had one or more driver possible contributing circumstances noted on their crash report form.

<b>Table 03Y-06: Driver Error (Percent Driver PCC's) by Age 1999-2001</b>			
Age Group	1999	2000	2001
15-19	64%	64%	63%
20-24	55%	56%	55%
All Ages	47%	48%	47%

Source: WI Crash Facts



Possible contributing circumstances do not ascribe blame for the crash to any driver involved in crash nor do they prove, in all cases, that drivers made definable errors. Nonetheless, they give us a clue about the opinion of the law enforcement officer present at the crash site as to unsafe driver behaviors that may have been involved in the crash.

Onset Age: The percent of high school students who drink and the frequency of drinking increases as the grade increases. The 2001 Wisconsin Youth Risk Behavior Survey (YRBS) found that while 60% of 9<sup>th</sup> graders said it was important for them not to use alcohol or other drugs, only 46% of 12<sup>th</sup> graders said the same. Thirty percent of students reported having had their first drink at the age of 13 or 14. 75 percent of eighth graders and 89% of 10<sup>th</sup> graders believe that alcohol is readily available to them for consumption. More than 40 percent of individuals who start drinking before the age of 13 will develop alcohol abuse or alcohol dependence at some point in their lives. Delaying onset age by 5 years decreases this risk to 20 percent.

Gender: In Wisconsin, crashes involving men are much more likely than those involving women to be alcohol-related. Among all fatally-injured male drivers, 35 percent of those tested had AC's of 0.10 percent or more in 2000. The percentage for women was 23. Alcohol involvement above the 0.10 AC legal limit is highest for fatally injured male drivers ages 35-44. Male high school students were more frequent alcohol drinkers and more likely to report binge drinking than female students.

Risk Taking: Adolescent impulsiveness results in poor driving judgment and participation in behaviors such as speeding, inattention, drinking and driving and not using a seat belt, and it is encouraged by peer pressure, against which the adolescent is poorly equipped. Compared to other age groups, teen drivers have more crashes involving higher risk factors.

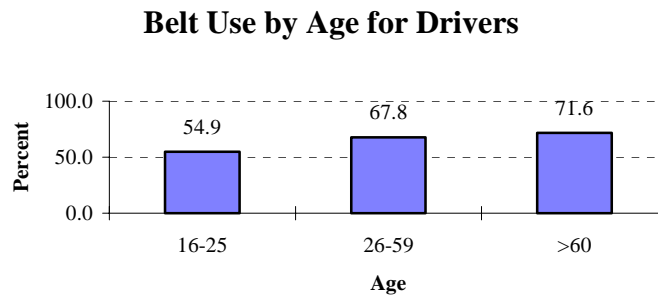
Alcohol: In 2000 1,245 drinking drivers in crashes were 15 to 20 years old and convictions for 11,029 Juvenile Alcohol (consumption or possession under age 17, procurement), 33,582 Underage Alcohol (possession or consumption ages 17-21), 3,348 Prohibited Alcohol Content (operation of vehicle with PAC) offenses were recorded and 1,652 "Not-a- drop" underage offenses were recorded. 9.8% of all drivers listed as "had been drinking" were teens.

Speeding/driving too fast for conditions: 16% of drivers 16-18 years old involved in a crash were speeding or driving too fast for conditions, while 14% of 19-20 year olds were taking the same risk. In 2000, the 16-19 year old age group had the most PCCs; 6,545 (up 1,138 from 1999) drivers reported as "driving too fast" in a crash, with the 16-19 year old males accounting for 37 (25 in '99) of the fatal crashes and 1,565 (1,464 in '99) of the injury crashes, and the 16-19 year old female accounting for 7 (12 in 99) of the fatal crashes and 908 (777 in 99) injury crashes.

The 25-34 age group was second with 5,068 (4,242 in 99) drivers reported as "driving too fast" in a crash, with the 25-34 year old male accounting for 32 of the fatal crashes and 1,242 of the injury crashes, and the 25-34 year old female accounting for 10 of the fatal crashes and 603 injury crashes. The 20 - 24 year old male accounts for 38 of the fatal crashes and 1,261 of the injury crashes, and the 20 - 24 year old female accounts for 6 fatal crashes and 541 of the injury crashes.

Safety Belt Use: Of 2,600 fatally injured occupants of passenger vehicles in Wisconsin from 1997 to 2001, young adult (21-34 year old) victims were the most likely NOT to be belted (78%), and the highest percentage of all unbelted fatalities were 21-34 year old males (83-84%). In 2001 Youth Risk Behavior Survey conducted in the spring of 1999, 24% of all students said they “always” wore their safety belt when riding in a car driven by someone else. 54% reported wearing their safety belt “most of the time.” Observed use for the 16 to 25 year old group was 54.9 percent in 2001.

**Figure 03Y-07: 2001 Observed Belt Use by Age**



Inattentive Driving: 17.7% of all 16-18 year old drivers in crashes had a driver PCC of inattentive driving. 15.2% of 19-20 year old drivers had this same PCC.

Failure to control: 14.5% of all 16-18 year old drivers in crashes had a driver PCC of failure to control. 13.7% of 19-20 year old drivers had this same PCC.

Following too closely: 6.9% of all 16-18 year old drivers in crashes had a driver PCC of following too closely. 6.4% of 19-20 year old drivers had this same PCC.

Binge Drinking/ High AC: The Surgeon General describes binge drinking as five or more drinks in a row for men and four in a row for women. Binge drinking is a contributing factor in about 1,400 deaths and 500,000 injuries each year nationally. The 2001 Wisconsin Youth Risk Behavior Survey (YRBS) reported that more than 54% of all Wisconsin high school students reported having had at least one alcoholic beverage in the past month and 63% of them reported drinking five or more drinks at a time. 37 percent of male students and 31 percent of females reported binge drinking.

Drugs Other Than Alcohol: Once teenagers start drinking, they are more likely to experiment with other substances and engage in other risky behaviors. The 2001 Wisconsin Youth Risk Behavior Survey reported that the proportion of students who reported using marijuana in the past 30 days increased from 11 percent in 1993 to 25 percent in 2001; that 31 percent of male students and 22 percent of females reported that they had been offered, given or sold illegal drugs on school property in the last 12 months, and that a strong correlation existed among alcohol and other drug use, tobacco use, and vehicle safety.

The National Household Survey on Drug Abuse, August 1996, reported that youth drug use rose 24% between 1994 and 1995, and an estimated 10.4% of youth age 12-17 used illicit drugs on a

monthly basis in 1995; monthly marijuana use among youth has risen 105% since 1992 and 37% between 1994 and 1995; monthly use of LSD and other hallucinogens is up 183% since 1992, and rose 54% between 1994 and 1995; monthly cocaine use rose 166% between 1994 and 1995. The Chronicle of Higher Education reported that drug arrests rose on college campuses in 1994 for the third straight year. The recent survey reports 6,138 drug violations, up 23 percent from arrests in 1993.

Number of Passengers: In 2001, nearly 65 percent of 16 to 19 year old passengers were killed or seriously injured in a car driven by another teenager. Nearly two-thirds of those passengers who suffered incapacitating injuries were in vehicles driven by a teenager. On average, once every 3.5 hours, a passenger age 16 to 19 was either killed or injured while riding in a vehicle driven by another teen. A John Hopkins School of Public Health study shows that the more young people in a car with a teenager driving, the more likely the driver will die in a crash. The presence of passengers was also shown to influence safety belt use.

<b>Table 03Y-08 Driver Age and Death or A Injury to Passengers 1999-2001</b>									
Driver Age	1999			2000			2001		
	A-inj	K-inj	% K & A	A-inj	K-inj	% K & A	A-inj	K-inj	% K & A
16-19	284	28	74.1%	203	24	67.4%	220	15	64.9%
All Others	97	12	25.9%	100	10	32.6%	118	9	35.1%
Total	381	40	100.0%	303	34	100.0%	338	24	100.0%

Source: WI Crash Facts

Time of Day/Day of Week: Alcohol involvement in crashes peaks at night and is higher on weekends than on weekdays. In 1999 among passenger vehicle drivers who were fatally injured between 9 pm and 6 am, 67% of those tested had ACs at or above 0.10 percent. During other hours the percentage drops to 20. Fifty-three percent of fatally injured drivers on weekends (6 pm Friday to 6 am Monday) have ACs of 0.10 percent or more. During the rest of the week, the proportion drops to 29 percent.

Three percent of a national sample of passenger vehicle drivers on weekend nights in 1986 had ACs at or above 0.10 percent--down from 5 percent in 1973. Drivers with ACs this high (0.10 percent) represent only 12 percent of all drinking drivers on weekend nights, but they are disproportionately represented (86 percent) in the drinking driver fatality statistics.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

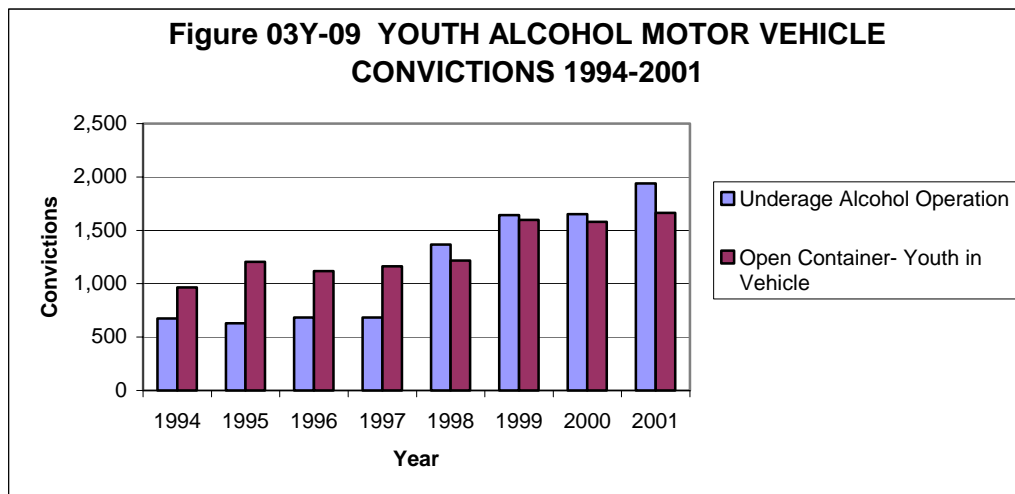
#### Strategy – Education and Information:

The general public, youth and community prevention organizations/collaborations that work with youth on young driver issues such as impaired driving, alcohol laws, safety belts, safe choices, etc. need access to up-to-date educational and motivational materials and current data to help them employ successful prevention strategies. A consortium made up of: Department of Health and Family Services, Marshfield Medical Research Foundation, Alliance for WI Youth, Independent Living, Dept. of Public Health; Department of Public Instruction, Wisconsin Promise, Department of Workforce Development, Wisconsin Positive Youth Development, UW-Extension 4-H sponsors most youth prevention and skill development work, but they are not primarily concerned with highway safety messages.

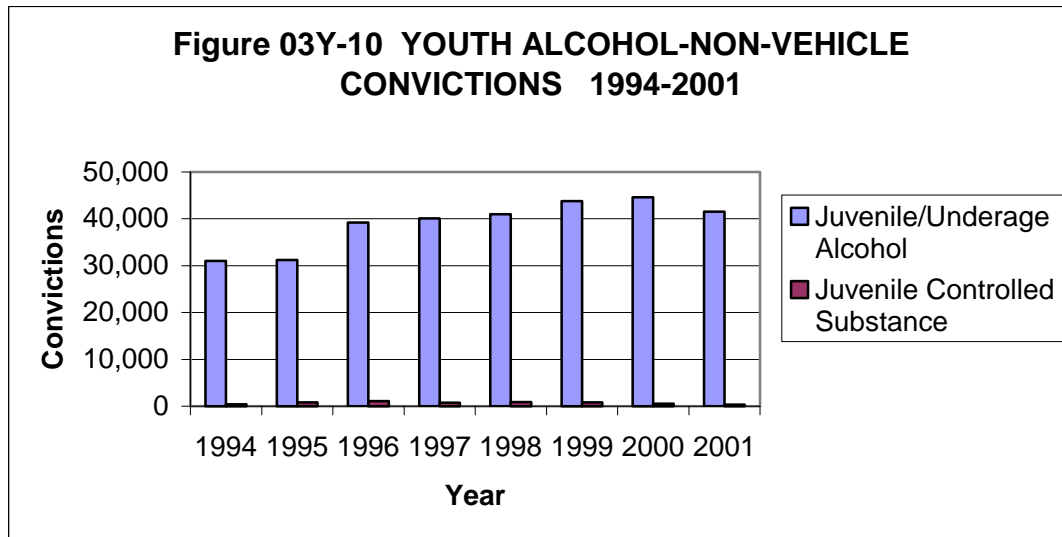
Safety messages must be formatted and worded appropriately by age and other grouping if they are to be effective. Peer education is a powerful and proven method in which youth impact other youth in changing attitudes and behavior. High schools offer opportunities to address groups of youth with safety messages, through auditorium shows, special events or integrated with the curriculum. Post-secondary institutions offer social settings and some curricula in which targeted messages or appropriate behavior can be modeled. Individual schools or post-secondary institutions do not have the resources to produce effective multi-media shows or educational events or materials to demonstrate the impact of risky decision-making by young people. Working young people are the hardest to reach and are not motivated by information alone.

**Strategy - Enforcement:** Enforcement and Enactment combine in this program area. Because the data clearly demonstrate a relationship between age, other risk factors and crash involvement, the Wisconsin Legislature passed a Graduated Driver License law, effective beginning February 2000. With knowledge that their community supports strict law enforcement intervention of youth underage alcohol laws, officers can be consistent and fair in their citation writing. This also sends a strict message to the community, and youth especially, that underage alcohol violations will NOT be tolerated. The consequence of a citation and the involvement of the courts and the parents is often the first step towards a change in attitude about high risk drinking and driving.

The level of enforcement has increased in the past few years, mirroring the level of interest and activity underlying the passage of the Graduated Driver License law.



Both motor vehicle-related convictions and underage alcohol and drug possession convictions have increased. However, drug convictions constitute only a small part of enforcement activity.



Strategy – Empowerment-Community Programs: Prevention professionals understand the important role of families, schools and communities in helping young people to develop into healthy, caring and responsible adults. This shared responsibility is about helping young people to develop healthy choices and reduced risky choices while behind the wheel, in the passenger seat, and on the street. Research findings and successful programs suggest a comprehensive and multifaceted approach that includes all community members.

Coordinated community efforts strengthen communities and empower youth to make a positive change in their community and in their decision-making and social responsibility. Comprehensive strategies expand partnerships with diverse organizations, minority populations and other high-risk and hard to reach populations. Communities must involve many partners in order to develop effective alternative transportation options for young adult drivers, especially the 21-34 year old males. In addition to law enforcement intervention, young people need the benefit of prevention efforts and diversion efforts such as alternative transportation programs and other reward programs.

Strategy - Protective Factor Development Three models have been shown to be effective in establishing protective factors which enable young people to develop the life skills which favor good decision-making, including decision-making in their choices regarding safe behavior on Wisconsin's roadways. These are: (1) Risk Factor Mitigation: The research of Hawkins and Catalano of over 30 years and more than 300 longitudinal studies establishes a clear link between certain risk factors and the expression of those risks in behaviors. In their study, they discovered certain Protective Factors could mitigate all known risk factors in the lives of young persons. To reduce risk factors in lives of young people we can; increase pro-social bonding, teach social skills, and establish clear, consistent boundaries; (2) Resiliency: The research of Bonnie Bernard established resiliency factors. Resilient children exhibit social competence, have developed problem solving skills, autonomy, and have a sense of meaning and purpose to their lives, and (3) Asset-Building: The research of Peter Benson and the Search Institute of more than 250,000 6-12 graders in over 450 communities combined with drawing from extensive literature on child and adolescence's development, resiliency, youth development, and prevention established Asset

Building. This research shows that assets are powerful in shaping behavior, both by reducing negative behaviors and increasing positive ones.

All three of these models have common ground in the protective factor research. Risk reduction factors include pro-social bonding, clear expectations, and learning life-skills. Resiliency factors include care and support, high expectations, and opportunities to participate. Asset building factors include care and support, clear boundaries, and structured time use. Using these models when developing youth programs and focusing on prevention may provide our youth and communities across Wisconsin the best opportunity of reducing motor vehicle crashes involving young people.

To reduce risk taking behavior and increase developmental assets, youth must be involved in program implementation, and adults must understand the powerful contribution youth can make. Youth also need to have a clear understanding of their choices and the impact upon themselves and others of the decisions they make.

Risk behaviors among youth are highly correlated. Many young people are involved in various risky behaviors, and thus require prevention approaches addressing the “whole person” and all issues. Strategies that are coordinated to address multiple issues reinforced over time are more likely to be effective than single-issue approaches. Multiple strategies are needed to promote healthy choices and reduce risk behavior. Young people have different needs and strengths that constantly change. Strategies must be coordinated within the school and community. Young people must experience a consistent message that promotes their development of values, skills, attitudes and assets.

A strong focus on life skill development is vital to provide youth the ability to take action in their own choices and influence the choices of others. Five skills form the basis for teaching health promotion, risk prevention and youth development across all areas: Critical thinking skills, skills which enable young people to make wise choices and actively solve problems which arise in social and other settings. Communication skills, these are vital for social competency and effective interpersonal relationships. Assertiveness helps young people say what they think and stand up for what they believe in without bringing others down. Stress management skills, To assist young people in avoiding making risky choices due to stressful situations. Learning positive coping strategies, building a support network, physical activity, relaxation techniques and other alternative activities enable them to more effectively manage all stress. Goal setting skills, can assist young people who often make health related decisions based on the immediate rather than long term consequences of the decision. Advocacy skills, address risk behaviors and healthy behaviors of young people who are influenced by the social context in which decisions are made. Young people can learn skills and behaviors to change the social context or physical environment.

Certain key concepts affect many health and safety behavior choices and can help young people reinforce and build on prior knowledge. A few of these concepts are: Influences: young people need to be able to critically reflect on how they construct their beliefs about risky choices and healthy choices and reflect on the variety of influences that impact those beliefs. Consequences: young people can reach a deeper understanding of the role consequences have in the decision-making process. Safety: provide young people an opportunity to evaluate their use of personal

skills and abilities and identify new skills. Responsibility: information about boundaries to assist young people in understanding limits which have been set in relation to behaviors and the degree to which rules promote personal and social well-being.

Strategy - Community Programs – OJJDP: The Office of Juvenile Justice and Delinquency Prevention (OJJDP) has provided a program of block and discretionary grants, training and technical assistance, and a national evaluation to the States to address the problem of underage drinking. The Enforcing the Underage Drinking Laws (EUDL) program (formerly the Combating Underage Drinking program) assists all 50 States and the District of Columbia to develop comprehensive and coordinated initiatives to enforce State laws that prohibit the sale of alcoholic beverages to minors and to prevent the purchase or consumption of alcoholic beverages by minors (defined as individuals under 21 years of age). In Wisconsin, the Bureau of Transportation Safety (BOTS) is the designated agency that administers this block grant and discretionary grants. BOTS has designed a comprehensive approach to addressing underage drinking and allocates the USDOJ funds to implement that approach. BOTS has joined existing public and private partnerships, including those of foundations and national organizations, to further this program, and has integrated it into the highway safety funded youth alcohol program.

Block grant funds support activities in one or more of three areas: enforcement, public education activities, and innovative programs. An example of a law enforcement activity is the creation of statewide law enforcement and prosecution task forces to target establishments suspected of consistently selling alcohol to minors.

Public education activities range from sponsoring media contests to creating billboard messages. Innovative programs include creating youth task forces to examine community norms and messages young people are receiving or hiring an individual to act as a liaison between youth and communities on the issue of underage drinking.

OJJDP program goals include:

- To comply with the intent of the funding from U. S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention (OJJDP) to combat/enforce underage drinking.
- To enhance and expand the comprehensive community efforts to reduce underage drinking in 23 Wisconsin communities; to increase the partnerships; and to expand enforcement activities.
- Train additional youth leaders per community and involve them in community leadership positions.
- Evaluate efforts to reduce underage drinking in Wisconsin at the community level and the state level.
- Replicate effective community efforts to combat underage drinking in other communities.

Strategy – Social Norms Marketing: Social norms marketing is one promising innovation to encourage in high-risk populations the healthy behaviors practiced by a majority of the public. The social norms approach to prevention is based upon promoting actual normative information to a specific group as a way of dispelling commonly held beliefs about exaggerated substance abuse norms. This approach is scientific and gathers data to show a significant disparity between perceived and actual substance use and then develops media and other strategies to promote the

true norms. This approach has been proven to reduce the reported harmful behavior (Montana Social Norms project).

Social norms marketing employs two processes to create an effective behavior change strategy. This process is based upon the social norms theory, which assumes that much of our behavior is influenced by how other members of our social groups behave, and that our beliefs about what others do are often times incorrect. (Perkins & Berkowitz, 1986) Because young adults are generally more susceptible to peer pressure and social acceptance everyday, this approach is applicable to this group.

The second process involves using social marketing techniques in designing programs for delivery through promotional campaigns that meet the specific needs of a target population. Campaigns that utilize social normative themes can have far-reaching effects on a variety of health outcomes. Northern Illinois University, Hobart and William Smith Colleges, Western Washington University and the University of Arizona saw reductions of 18 to 21 percent in binge drinking rates among college students over a two-year period. (Perkins 1998)

#### D. CRITERIA FOR PROJECT SELECTION

Priority for Traffic Law Enforcement funding will be given to the counties and communities: (1) with populations in excess of 10,000 and with many highway miles and other exposure factors; (2) with the most total crashes or crashes of a particular type with serious injuries and deaths and/or a high injury to death ratio; (3) demonstrating willingness to coordinate community-wide safety strategies, programs and funds; (4) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (4) with a plan to evaluate the effectiveness of their enforcement activities; and (5) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

Smaller communities may be eligible if they demonstrate problems of unusual scope or usual buy-in and effectiveness in implementing past Highway Safety projects.

Priority for Community Project funding will be given to the counties and communities: (1) with populations in excess of 10,000 and with many highway miles and other exposure factors; (2) with the most total crashes or crashes of a particular type with serious injuries and deaths and/or a high injury to death ratio; (3) demonstrating willingness to coordinate community-wide safety strategies, programs and funds; (4) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (4) with a plan to evaluate the effectiveness of their enforcement activities; and (5) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

Priority for College Project funding will be given to the counties and communities: (1) with the most total crashes or crashes of a particular type with serious injuries and deaths and/or a high injury to death ratio; (2) demonstrating willingness to coordinate community-wide safety strategies, programs and funds; (3) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (4) with a plan to evaluate the



effectiveness of their enforcement activities; and (5) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

## **PROGRAM OBJECTIVES**

**Objective 1:** To decrease the number of drivers ages 15-19 killed or seriously injured in motor vehicle crashes to 538 by end of CY 2003.

Performance Measure: Number of 15-19 year old drivers killed or seriously (A) injured in motor vehicle crashes.

Baseline: In CY 1994, 802, 15-19 year old drivers were killed or seriously (A) injured. Three-year average for 1994-1996 was 1,021 killed or seriously (A) injured.

Status: In CY 2001, 587 15-19 year old drivers were killed or seriously (A) injured. Three-year average for 2001 was 650 killed or seriously (A) injured.

**Objective 2:** To decrease the number and percent of 20-24 year old drinking drivers involved in crashes to 2,000 and 20% by the end of CY 2003.

Performance Measure: Number of 20-24 year old drinking drivers in crashes as a percentage of the total of all drinking drivers involved in crashes.

Baseline: In 1994, 2,181 20-24 year old drinking drivers (21.8% of all drinking drivers) were involved in crashes. 1994-1996 three- year average was 2,029 (20% of all drinking drivers)

Status: In CY2001 2,096 20-24 year old drinking drivers (24% of all drinking drivers) were involved in crashes. 1999-2001 three- year average was 1,996 (23% of all drinking drivers).

**Objective 3:** To decrease the percent of killed 20-24 year old drivers in crashes whose AC tested at 0.10 or above to 40% by the end of 2003.

Performance Measure: Percent of 20-24 year old drivers killed in MV crashes for whom the tested AC was 0.10 or greater.

Baseline: In 1994, 36% of killed 20-24 year old drivers tested at 0.10 AC or above. Three- year average for 1994-1996 was 38%.

Status: In CY 2001, 50% of killed 20-24 year old drinking drivers tested at .10 AC or above. Three-year average for 1999-2001 was 50%

## TABLE of STRATEGIES & ACTIVITIES

### TEEN DRIVERS (15-19 YEAR OLDS)

#### STRATEGY -- EDUCATION

##### **Activity: 03-41-06-J8 EDUCATIONAL ACTIVITIES - 410-funded**

**Problem:** The public, youth and Community prevention organizations/collaborations that work with youth on young driver issues such as impaired driving, alcohol laws, safety belts, safe choices, etc. need access to up-to-date and effective educational materials and strategies that engage youth. There are few published newsletters on prevention topics by and for youth. Existing prevention organizations are not primarily concerned with highway safety messages. High schools offer opportunities to address groups of youth with safety messages. These messages must be formatted and worded so as to reach the audience. Individually, schools can't produce effective multi-media shows that demonstrate the impact of risky decision-making by young people. .

**Objectives:**

1. To provide up to 100 Wisconsin high schools a high-energy multi-media show and provide at least 20% of participating schools with follow-up traffic safety information and local contacts during the 2002-2003 year.
2. To contribute to the training of 10 teams of young people in the use of peer theater strategy to raise awareness of, and help people talk about, alcohol, drugs, tobacco, and violence during the 2002-2003 year.
3. To provide Wisconsin youth and their advisors with free and appropriately targeted highway safety informational and motivational materials. To provide prevention resources to communities which are in need by September 2003
4. To assist in funding and organizing at least two statewide prevention conferences by September 2002 and to assure integration of traffic safety themes/messages in all sponsored conferences.

**Activities:** Contract for research, production and coordination of a multi-media high school auditorium show, focusing on making healthy and safe decisions. Provide support safe driving information and materials for a statewide effort to train teams of young people in peer theater/improvisational skills which they can utilize in their communities. Co-sponsor and help plan state prevention conferences

**Resources:** \$73,000. \$50,000 for high-school auditorium show contractual services; \$5,000 for Peer Theater contractual services, travel & training; \$5,000 for educational material M&S, printing, postage; \$13,000 for statewide prevention conference support - \$6,000 for MADD, \$2,000 for SADD and \$5,000 for others.

**Self-sufficiency:** BOTS is now able to obtain an updated auditorium show annually, a source to coordinate the show and increase the number of students reached. Additional funding for Wisconsin communities assisted in over 200 high schools receiving this show during the 2001-2002 school year. Once teams are trained they implement programs in their communities.

**Evaluation:** Auditorium show CD-ROM contains curriculum and pre/post program and 6-month follow-up surveys. Number peers trained and number of students reach with theater presentations. PI&E evaluation – use and effectiveness. Number of attendees at conferences and conference evaluation question on safety.

**Activity: 03-44-03-JX PI&E for COMBATING UNDERAGE DRINKING PROGRAM -USDOJ- funded**

**Problem:** The public, youth and Community prevention organizations/collaborations that work with youth on young driver issues such as impaired driving, alcohol laws, safety belts, safe choices, etc. need access to up-to-date and effective educational materials and strategies that engage youth. There are few published newsletters on prevention topics by and for youth. Existing prevention organizations are not primarily concerned with highway safety messages.

**Objectives:** 1. To assure the presence of WisDOT-BOTS and traffic safety information in the 3 annual issues of the "Youth Press of Wisconsin" newsletter written for youth by youth on prevention of drug and alcohol issues.  
2. To provide Wisconsin communities and residents with materials on the above topics. To provide prevention resources to communities by September 2002

**Activities:** Evaluate, develop, reproduce and distribute print and video materials. Research and provide needed various underage drinking resources to communities. Co-Sponsor production of a newsletter written for youth by youth on prevention of drug and alcohol issues.

**Resources:** \$20,000. \$ 5,000 for newsletter M&S, wage and fringe; \$15,000 for PI&E materials for M&S, printing, postage

**Self-sufficiency:** Cost of reproduction only. Once materials are provided to communities, they will use them in program development and implementation. Private organizations contribute funds to assist in production of the free youth newsletter-BOTS contribution just assures highway safety content.

**Evaluation:** BOTS PI&E evaluation – use and effectiveness; administrative evaluation. Newsletter circulation and number and quality of safety messages.

## **STRATEGY -- EMPOWERMENT – Community Programs**

**Activity: 03-41-07-J8 TEEN EMPOWEMENT ACTIVITIES 410 funded**

**Problem:** Communities lack adequate resources to initiate youth development models and need assistance in expanding their efforts in reducing youth involvement in motor vehicle crashes. Many Wisconsin Communities try to initiate safe driving programs around high-risk events such as graduation and prom or in response to local crashes but often need a small dollar amount to assist in providing these programs. Wisconsin youth have few opportunities to be involved in youth leadership positions, advocating for themselves and developing and pursuing policies for youth. Young drivers make many judgment errors; they fail to wear seat belts on a regular basis and need to develop this habit. With the increasing proportion of 15-20 year old drivers and their high crash rate, increased safety belt use has great potential for decreasing fatalities and serious injuries. Young people are making risky decisions that are putting them into the judicial system. The system is not equipping them with skills to help change their behavior and make healthy decisions.

**Objectives:** 1. To assist up to 9 communities to adopt youth development models by September 2003.  
2. To assist up to 2 communities to implementing community safe driving awareness programs by September 2003  
3. To identify and implement one new judge/jurisdiction to conduct Critical Life Choices and Court In Schools by September 2003. To initiate and implement new Teen Courts by September 2003.  
4. To assist 6 communities to implement Operation Teen Buckle Down to increase safety belt usage among young drivers by 25% in participating communities by September 2003.  
5. To increase the number of youth involved in community service to 25% by September, 2003  
6. To study the usefulness of an RFP process for a school-centered umbrella highway safety project.

<b>Activities:</b>	Provide resources and necessary funding to replicate program aimed at increasing safety belt use by teenagers. Support a coordinator to begin expanding Critical Life Choices and Court in Schools to interested key players in target communities and expand the number of Teen Courts across Wisconsin. Co-sponsor with 9 other organizations the state Y.E.S. Ambassador who will develop and conduct youth leadership training; advocacy, and policy. Assist communities in initiating a youth development movement and fund increased community efforts in developing/implementing programs to reduce youth involvement in motor vehicle crashes.
<b>Resources:</b>	\$175,000. \$30,000 for Community Youth Development Grants travel & training, M&S, contractual services; \$10,000 for Community Youth Initiative M&S and training; \$30,000 for CLC and CIS coordination wage & fringe, travel & training, M&S; \$30,000 for Teen Court coordinating wage, & fringe, travel & training, M&S; \$30,000 for Teen Buckle Down M&S, training; \$15,000 for contribution to YES Ambassador wage & fringe, fees, travel & training, M&S
<b>Self-sufficiency:</b>	If communities repeat the Operation Teen Buckle Down, Community Youth Development or Youth Community Initiative programs, all funds come from the community. Teen court fund support only state-level coordination-local programs are locally funded; YES Ambassador trained youth themselves become trainers.
<b>Evaluation:</b>	Each community will compare safety belt use prior to and after program implementation. State coordinator will evaluate status of adding new sites to CLC and CIS and recidivism rates among Teen Court participants. YES Ambassador must comply with standard reporting requirements. Community youth grants will describe activities and survey youth attitudes.

<b>Activity: 03-44-01-JX COMMUNITY COMBATING UNDERAGE DRINKING PROGRAM -USDOJ- funded</b>	
<b>Problem:</b>	In nationwide surveys Wisconsin continues to rank first in self-reporting of underage alcohol consumption and binge drinking. The administration of this grant through BOTS permits coordination of these community activities with 410-funded community activities, increasing the possible effectiveness of both.
<b>Objectives:</b>	<ol style="list-style-type: none"> <li>1. To enhance and expand the comprehensive community efforts to reduce underage drinking in up to 27 Wisconsin communities</li> <li>2. To increase the partnerships in each of these community efforts by 30%.</li> <li>3. To increase and expand the type of enforcement activities by 15%.</li> </ol>
<b>Activities:</b>	Assist local community task forces to provide guidance and direction for the effort; expanded enforcement activities targeting servers, sellers and purchases; technical assistance for local prevention programming; and mini-grants for adult/youth partners to oversee the effort. Provide training to community youth and adults on safe decision-making techniques, assist communities in setting up teen courts.
<b>Resources:</b>	\$592,054, funding provided by Office of Juvenile Justice and Delinquency Prevention.
<b>Self-sufficiency:</b>	Communities are encouraged to continue efforts that are effective.
<b>Evaluation:</b>	BOTS, in conjunction with the Northwoods Coalition, is coordinating the evaluation of this project.

## STRATEGY -- ENFORCEMENT

### Activity: 03-44-02-JX YOUTH ALCOHOL ENFORCEMENT PROGRAMS - CARD USDJ – funded

**Problem:** Year after year alcohol remains the number one drug of choice for our state's young people. More than any other age group, those 15-20 years of age are over-represented in motor vehicle crashes. The easy availability of alcohol and the perception that they won't be caught procuring or consuming contributes greatly to the problem. High-risk behavior choices and the addition of alcohol increases the probability of crashes, injuries, and fatalities.

**Objectives:**

1. Decrease the drinking driver crash rate for drivers age 15-20 who are identified by the reporting officer as "had been drinking."
2. Decrease the number of 15-20 year old drivers and passengers killed and injured in motor vehicle crashes.
3. Reduce availability of alcohol to underage individuals.
4. Increase the number of underage alcohol enforcement tools.

**Activities:** Fund up to 20 community Comprehensive Alcohol Risk reDuction (CARD) enforcement projects: A combination of the Cops in Shops and the Party Patrol programs that allows for a greater number of patrols in a community and will increase the perception of risk

**Resources:** \$80,000 for officer wages, fringe, and equipment.

**Self-sufficiency:** Departments will provide a 25% match (hard or soft) which will include program mileage, administration time, PI&E, additional enforcement hours, and training.

**Evaluation:** Administrative: Project activity and success in meeting objectives. BOTS analysis of crash data and severity index with the three previous years average and specific head and spinal cord injury data from 1997-1999.

## YOUNG ADULT DRIVERS (20-24 YEAR OLDS)

## STRATEGY -- EMPOWERMENT – Community Programs

### Activity: 03-41-08-J8 POST-SECONDARY IMPAIRED DRIVING PREVENTION PROJECTS -- 410 funded

**Problem:** Few effective programs/activities exist at the post secondary level aimed specifically at reducing impaired driving. A great deal of high-risk drinking and often drinking/driving behaviors occur on college campuses, and campus organizations are seeking methods of reducing these risks.

**Objectives:** To assist up to 10 post secondary communities in implementing new and effective impaired driving prevention programs and activities by September 2003.

**Activities:** Assist 6 college communities to develop and implement alcohol/ impaired driving prevention programs/ activities.

**Resources:** \$36,000 for contractual services, travel & training, M&S

**Self-sufficiency:** Communities will provide increasing match each year, and will continue efforts once BOTS funding is cut.

**Evaluation:** Administrative – number of communities funded, and each community will evaluate their developed objectives

**03-04**  
**POLICE TRAFFIC SERVICES**

**Program Goal:** To decrease the number of speed-related crashes to 16, 280 by end of 2003, to 14,652 by end of CY2005 and to 13,919 by end of CY2007; and to decrease the number of people killed in these crashes to 223 by end of CY 2003, to 201 by end of CY2005, and to 191 by end of CY2007; and to decrease the number of people severely injured in these crashed to 1,307 by end of CY2003, to 1,176 by end of CY2005, and to 1,117 by end of CY2007.

**Program Goal:** To decrease the number of fatal and incapacitating crashes resulting from other reported "aggressive driving behavior" to 1,770 by end of CY2003, 1,500 by end of CY2005, and to 1,230 by end of CY2007; and to reduce the number of people killed and severely injured in these crashes to 2,374 by end of CY2003, to 1,964 by end of CY2005 and to 1,554 by end of CY2007.

The National Highway Traffic Safety Administration's national traffic law enforcement objectives for 2003 are to increase seat belt use and to reduce impaired driving, speeding, aggressive driving and other unsafe driving acts; to expand training designed to reemphasize a broad-based traffic enforcement program and expand training for law enforcement, prosecutors and judges to heighten emphasis on aggressive driving.

**FUNDS**

<b>POLICE TRAFFIC SERVICES 04</b>						
<b>Activity</b>	<b>Title</b>	<b>Fed</b>	<b>State</b>	<b>Local</b>	<b>Tot Prog</b>	<b>Loc Benefit</b>
03-04-01	Program Mgmt	65,000	10,000	30,000	105,000	16,250
03-04-02	PI&E	80,000	5,000	15,000	100,000	40,000
03-04-03	Training	45,000	3,000	90,000	138,000	22,500
03-04-04	Community Program	20,000	0	4,000	24,000	20,000
03-04-05	Speed Enforcement	410,000	0	205,500	615,500	360,000
<b>402 TOTAL</b>	<b>(PT)</b>	<b>620,000</b>	<b>18,000</b>	<b>344,500</b>	<b>982,500</b>	<b>458,750</b>

**PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION**

Police Traffic Services include the enforcement of traffic laws, training in traffic enforcement skills, and crash and injury prevention activities such as leadership, outreach and education in the community to encourage safety belt and child safety seat use, the use of helmets, protective gear and conspicuity, and community-based efforts to discourage speeding, aggressive driving and other unsafe driving acts. All grants for law enforcement activity require that participating officers be trained in TOPS and SFST by CY2004, and that participating agencies coordinate their traffic

patrols with other local safety activities and with state and national mobilizations or waves of enforcement.

#### A. MAGNITUDE and SEVERITY of DRIVER BEHAVIOR-CAUSED CRASHES

In 2001, Wisconsin law enforcement officers reported 125,403 traffic crashes, a decrease of 14,107 from 2000. The number of reportable crashes peaked in the mid-nineties and trended generally downward since then with the notable exception of 1999 and 2000.

The Wisconsin crash report form (MV4000) permits the reporting officer to indicate "possible contributing circumstances" (PCC's) that in their opinion contributed to crash causation; these may include roadway, vehicle or driver factors. Driver factors may include driver behaviors or driver condition (generally alcohol or drug impairment). An officer may report a driver PCC, but not issue a citation for a crash. Although more than one possible contributing circumstance can be listed, the PCC's provided in WI Crash Facts only consider the primary one.

In 2001, in 94,085 (75%) crashes the investigating officer cited a Possible Contributing Circumstance (PCC) for at least one driver. In 684 fatal crashes, 624 (91%) driver PCC's were reported. "No Driver Cause" was reported for 8.6% of the fatal crashes and 25% of all crashes. This may represent vehicle or roadway factors as being contributing circumstances, or incomplete data being reported.

#### B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

**SPEED:** A "speed related crash" is defined as a crash in which at least one driver involved in the crash received a citation for speeding or was listed on the crash report as "exceeding the speed limit" or "speed too fast for conditions."

In 2001, speed was listed as a contributing cause in 18,089 (14.5%) of the 125,403 reportable crashes, a decrease of 7,136 from 2000. Of the 684 fatal crashes in 2001, 218 (32%) were determined to be speed-related, an increase of 12 from 2000. These crashes resulted in 248 fatalities and 1,482 incapacitating injuries, 344 fewer than in 2000.

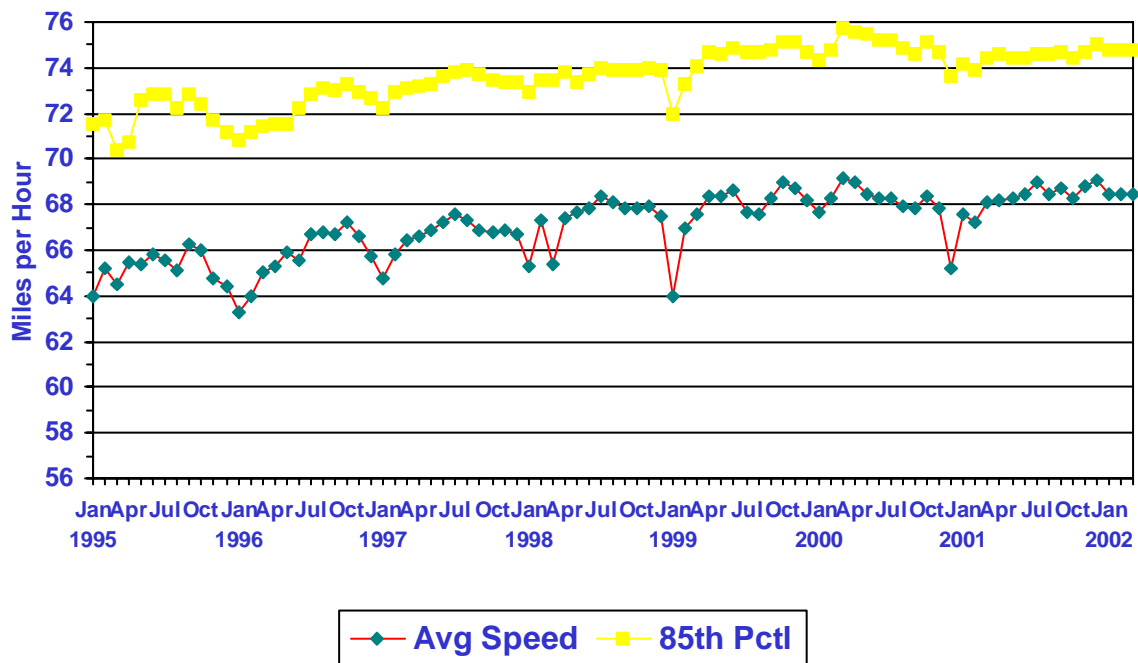
<b>Table 04-01: WI SPEED CRASHES 1994-1996; 1999-2001</b>									
SPEED CRASHES	1994	1995	1996	1998	1999	2000	2001	94—96 3-yr av	99—01 3-yr av
Speed-Related Crashes	24,809	24,564	24,421	18,311	20,259	25,225	18,089	24,598	21,180
Speed-Related Fatalities	242	213	214	203	203	231	248	223	226
Speed-Related Injuries	14,450	14,197	14,442	11,439	12,196	13,457	10,981	14,363	12,201
Speed-Related A-Injuries	2,231	1,979	1,943	1,571	1,678	1,596	1,452	2,051	1,574
Total K+A	2,473	2,192	2,157	1,774	1,881	1,826	1,699	2,274	1,800

Source: WisDOT Crash Database

Some speed-related crashes in 2001 (125 fatal and 2,063 total) involved both speed and alcohol. "Alcohol-related crashes" are ones in which at least one driver involved in the crash was listed on a

police or coroner report as drinking alcohol prior to the crash. Speed - Alcohol crashes are considered to be alcohol-related crashes because the most effective interventions are aimed at separating the impaired person from the vehicle before they drive. Speeding is only one of many bad decisions made by an impaired driver. Speed also contributes to ejection of unbelted drivers and passengers.

**Chart 04-02: SPEEDS on WI RURAL 4-LANE ROADWAYS**  
**Average & 85th Percentile Speed**  
**(January 1995 – March 2002)**



Speeds have increased steadily on rural 2-lane and 4-lane roadways since the reinstatement of the 65 mile per hour speed limit on freeways and expressways. The increase is more marked on the 4-lane roadways, but the effects in terms of speed-related crashes are greater on the 2-lane roadways. In 2002, 85 percent of drivers are traveling at 75 mph or slower and the average speed is just above 68 mph on the rural 4-lane roadways. The dips in speed limit reflect periods of snow and adverse weather.

**AGGRESSIVE DRIVING:** In a 1999 NHTSA survey on aggressive driving attitudes and behaviors, more than 60 percent of drivers perceived unsafe driving by others as a major personal threat to themselves and more than half admitted to driving aggressively on occasion. Although there is no single accepted definition of aggressive driving, NHTSA defines it as “operating a motor vehicle in a manner that endangers or is likely endanger people or property.”

Aggressive drivers are high-risk drivers. They are more likely to drink and drive, speed, or drive unbelted even when not being aggressive. They act as though their vehicle provides anonymity,



allowing them to take out driving (and non-driving related) frustrations on others. Their frustration levels are high and concern for other motorists low, they consider vehicles as objects and fail to consider the human element involved. Roadway congestion is a big contributing factor to driver frustration and a trigger to aggressive driving behaviors.

Aggressive driving is generally considered to consist of combinations of several high-risk behaviors, which taken singly do not represent aggression. These behaviors include exceeding the posted speed limit, following too closely or tailgating, erratic or unsafe lane changes or weaving in and out of traffic, improperly signaling lane changes; running stop signs, disobeying red lights, passing on the right, flashing lights, blowing horns, or making hand and facial gestures.

Wisconsin, like most states, does not have a citation for "aggressive driving." For the purpose of tracking and evaluating aggressive driving K&A crash data, Wisconsin uses the following to identify an aggressive driving behavior. An "aggressive driving behavior crash" has been defined as one in which at least one driver was cited for exceeding the speed limit, speed too fast for conditions, failure to yield right of way, failure to obey traffic sign or signal, following too close, driving left of center, improper overtake or driver behavior was noted by the responding law enforcement officer as a PCC on the MV4000 crash report form.

<b>Table 04-03: Aggressive Driver Behaviors and Crashes 1994-2001</b>						
	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Aggressive K&A Crashes	2987	2659	2503	2245	2281	2040
Total K&A Crashes	7154	6551	6231	5707	5639	5140
% Aggressive Crashes	41.8	40.6	40.2	39.3	40.4	39.7
Aggressive K&A Injuries	4219	3700	3622	3185	3165	2784
Total K&A Injuries	9320	8489	8214	7357	7242	6588
% K&A Injuries	45.3	43.6	44.1	43.3	43.7	42.3

Source: WisDOT

<b>Table 04-04: Driver Aggressive Behaviors, Crashes and Fatalities 2001</b>		
<b>Behavior</b>	<b>Total Crashes</b>	<b>Fatal Crashes</b>
Failure to Yield ROW	19,477	75
Improper Overtake	13,157	51
Disregarded Traffic Sign or Signal	5,832	29

Source: DMV

**INATTENTIVE DRIVING:** Inattentive Driving is a catch-all category, including everything from distracted driving to drowsiness. During 2001, Inattentive Driving was listed for 87 (12.7%) of fatal crashes and 21,950 (17.5%) of total crashes.

**LOCATION: RURAL CRASHES:** More than 4 times as many fatal crashes (576) occurred on rural roadways than urban (129) in 2001, but more injury crashes occurred on urban roadways (24,916) than on rural (16,509). 626 people were killed and 24,685 were injured in crashes on rural roadways. 138 people were killed and 33,594 people were injured crashes on urban roadways.

<b>Table 04-05:2001 Crashes by Highway Class and Severity</b>				
Hwy Class	Fatal	Injury	PDO	Total
Local Street/Road	196	20,142	41,702	62,040
County Highway	167	4,129	10,423	14,719
State Highway	286	12,709	27,587	40,582
Interstate System	35	2,379	8,062	10,476
Total	684	39,359	85,360	125,403

*Source: 2001 DMV Crash Database*

**LOCATION - INTERSECTION:** Nationally nearly half of all crashes and about 20 percent of all fatalities occur at intersections. Nearly 60 percent of fatalities occurred at urban intersections and nearly 80 percent occurred at intersections on higher-speed arterial and collector roads. In Wisconsin, 198 people were killed, and 29,709 people were injured in intersection crashes during 2001.

**MONTH and TIME OF CRASH:** Weather appears to have a considerable effect on crash occurrence. Speeds fall during periods of adverse weather, and although minor crashes may increase, those causing serious death and injury decrease. February had the greatest number of speed-related crashes 2,849, with 2,170 on snow, slush and ice; January had 2,160, with 1,514 on snow, slush and ice, and December had 2,153 with 1,058 on snow, slush and ice. Comparing the remaining months for speed-related crashes, November was first, October second and August third. In all crashes on rural and urban roads, September had the greatest number of fatalities, 87 (65 rural and 13 urban); August had 85 fatalities (66 rural and 13 urban); November had 82 fatalities (59 rural and 16 urban); and December had 81 fatalities, (62 rural and 10 urban). More people (31,859) are injured during the months of May through October (November through April 26,420). May had 5,249 (1,392 rural and 2,118 urban), June had 5,393 (1,518 rural and 2,098 urban), July had 5,331 (1,586 rural and 1,996 urban), August had 5,691 (1,623 rural and 2,186 urban), September 5,125 (1,425 rural and 1,975 urban) and October had 5,070 (1,378 and 2,066 urban).

In 2001, speed-related crashes were most frequent during commute hours: 3 - 4 p.m. (1,102), 7 - 8 a.m. (1,096), 4 - 5 p.m. (1,089), and 5 - 6 p.m. (1,061). More persons were killed in night-time speed related crashes; from 2 - 3 a.m., (31). 10 - 11 p.m. (17), and 11-12 p.m (17). Speed-related injuries were most frequent during 3 - 6 p.m. and 7 - 8 a.m.

**MUNICIPALITY TYPE:** A recent study of high-risk driver behaviors reported that community development patterns are a significant factor in high-risk driver crash deaths. If a community has high transit use, with biking and walking populations, its death rate was lower than communities characterized by urban sprawl. The latter communities have more high-speed arteries and higher population that contribute to congestion.

<b>Table 04-06: 2001 Crashes by Municipality Type and Severity</b>				
Municipality	Fatal	Injury	PDO	Total
City	130	22,408	42,321	64,859
Town	521	14,238	36,858	51,617
Village	33	2,713	6,181	8,872
Total	684	39,359	85,360	125,403

Source: 2001 DMV Crash Database

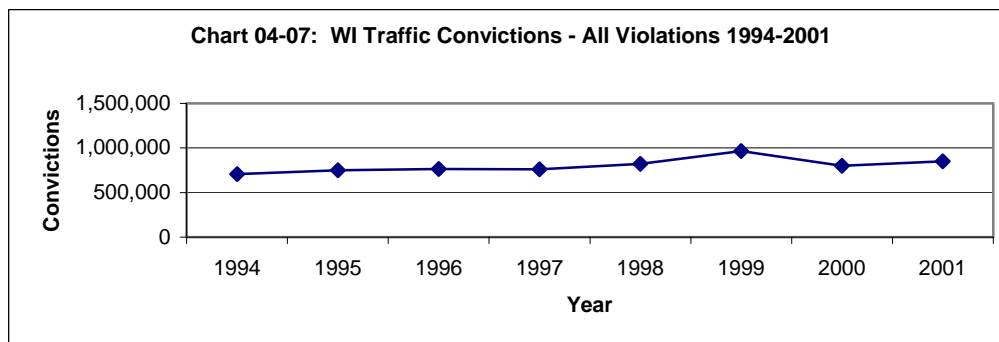
### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

Crashes caused by speeding, aggression and other risky driver behavior must be addressed by multiple strategies, of which traffic law enforcement is a major component. However, enforcement is only briefly effective if performed alone. Many studies have demonstrated that combinations of strategies which increase the public's perception of risk of immediate negative consequences (i.e., a citation and fine, and maintain this perception over time, are the most effective use of traffic law enforcement time). In the long run, community attitude shifts changing the definition of "acceptable" behavior have the greatest potential for decreasing negative driver behaviors. The public needs to accept that officers are contributing to public health and safety by enforcing traffic laws; this attitude shift is best accomplished through Safe Community and other community-based coalitions. Law enforcement cannot be expected to make these changes alone.

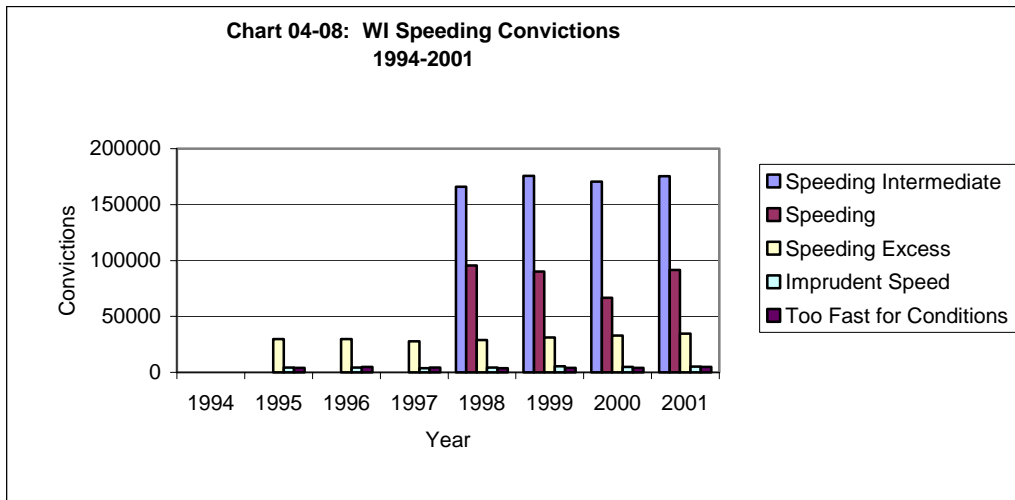
#### Strategy – Targeted Traffic Law Enforcement

Specialized enforcement projects such as speed waves, aggressive driving patrols, red-light running campaigns, and the like, may contribute to the public's awareness of specific types of behaviors at the same time that the presence of traffic patrols serves as a general deterrent to the wide variety of undesirable behaviors that are not being targeted.

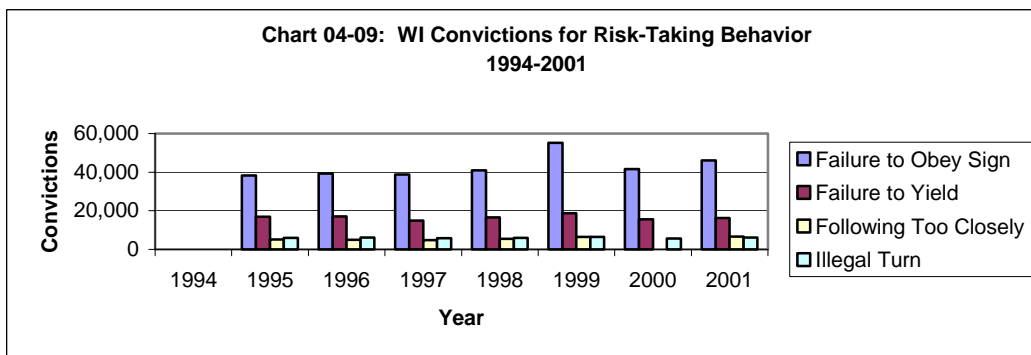
The number of convictions for speeding, aggressive driving and inattentive driving indicates both the incidence of the behaviors and the ability and willingness of law enforcement and prosecutors to address them with enforcement strategies.



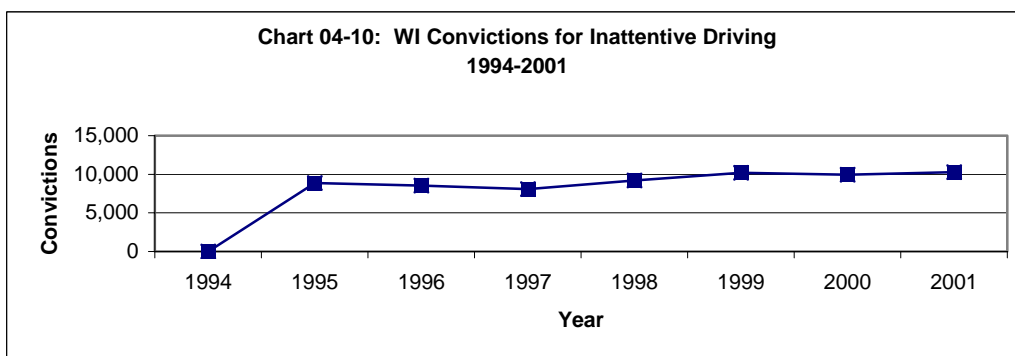
The previous graph shows a slow climb in total convictions with a relatively sharp drop in 2000. The increase to 850,776 in 2001 is largely due to a considerable increase in safety belt citations, which carry no points and a negligible fine.



Convictions for speeding fluctuate from year to year. A decrease in the number of speeding convictions in 2000 contributed to the total decrease in traffic citation activity.



Convictions for Risk-taking behaviors show no clear trend either as a whole or looking at individual violations.



Effective and ongoing traffic policing is a key factor in improving or maintaining the quality of life in a community. Traffic enforcement officers need the skills, tools and technology that permit them to make most effective and efficient use of their time. By supporting officers' basic detection skills, technology will improve their ability to enforce the law and to catch criminals.

The Federal Highway Administration and its partners have finalized a comprehensive national intersection safety agenda. It proposes multiple strategies, beginning with better data, emphasizing individual responsibility, applying engineering improvements and using technologies such as red-light-running cameras. See 03-08-01-RS for training that addresses intersection safety.

## WISCONSIN ENFORCEMENT AGENCIES and ORGANIZATIONS

Wisconsin has a complex organization of autonomous state, county and local law enforcement agencies from which voluntary participation must be sought. The state has no single agency responsible for the administration of public safety or traffic law enforcement.

The Wisconsin Department of Justice (DOJ): The DOJ provides legal advice and representation, criminal investigation, officer training and other services. The Attorney General, an elected official, directs the DOJ. The DOJ Division of Law Enforcement Services provides technical and scientific assistance to state and local agencies and maintains files pertaining to criminal behavior. Within that division, the Bureau of Training and Standards is primarily responsible for the administration of Law Officer training in Wisconsin. DOJ has no traffic law enforcement unit, but does have a Community Policing Specialist.

WisDOT Division of State Patrol: Wisconsin's single state-level enforcement agency is the Division of State Patrol, located within the Wisconsin Department of Transportation. The State Patrol is organized into seven districts led by Patrol Captains. The number of sworn traffic officers of all ranks is limited by statute to 401 (Wis. Stats., sec. 110.07(l)). WSP troopers investigate about 4% of all crashes, and write more than 35 percent of statewide total belt citations. Each District often coordinates its enforcement efforts with those of the counties and municipal agencies within district boundaries.

The Wisconsin State Patrol's primary function is to provide for the safe and efficient movement of persons and property on Wisconsin highways; it also promotes highway safety through education and enforcement, assists and supports other agencies through police and communication services, and operates the Wisconsin State Patrol Academy to train state, county and local law enforcement officers. The Wisconsin State Patrol had the first safety belt policy in the nation (1956).

County and Municipal Law Enforcement Agencies: Wisconsin has 640 law enforcement agencies; 72 county enforcement agencies and 215 municipal enforcement agencies employ at least one full-time sworn Officer. Information regarding employment figures and approximate percentages of jurisdictional population is summarized in an annual Wisconsin Office of Justice Assistance

publication, *Crime and Arrests in Wisconsin*. No information on the number of officers dedicated to traffic enforcement is available now but will be in a few months. However, the data are clear; the majority of Wisconsin's crashes are reported by county and city enforcement officers; the burden of responding to crashes, maintaining scene safety and investigating and reporting the crashes falls totally within their local budgets. Because they are also responsible for calls for service, including crimes, disturbances, citizen assistance and the like, large amounts of local enforcement resources must be juggled to meet priority needs, which may not be traffic.

<b>Table 04-11: 2001 Crashes by Reporting Agency Type by Severity</b>				
Reporting Agency Type	Fatal	Injury	PDO	Total
State Patrol	62	1,600	3,845	6,540
County Sheriff	470	13,617	35,382	54,950
City Police	114	20,818	38,881	66,221
Village Police	19	1,956	4,465	7,221
Town Police	16	1,313	2,900	4,293
Other	3	54	205	285
<b>Total</b>	<b>684</b>	<b>39,358</b>	<b>85,301</b>	<b>125,300</b>

Strategy – Education – Public Information: Enforcement Campaigns: Effective mass media techniques have been shown to increase the motoring public's perception of the risk of becoming involved in a serious crash or of receiving a citation for unlawful behavior and to improve the immediate and long-term effectiveness of enforcement campaigns. The "Elmira" model of waves of publicity and enforcement has shown success for more than 20 years. Thus, all Wisconsin enforcement activities will include a publicity campaign that precedes the activity and has a message relating to the presence of enforcement patrols and their immediate, high-probability consequences, whether the patrols occur in waves or as a general deterrence activity.

Public education cannot by itself change the motoring public's attitude regarding the social benefit of obeying posted speed limits or other socially desirable driving behaviors. These attitude changes occur most successfully within communities as outgrowths of community-wide integrated safety programs such as Safe Community coalitions, in which traffic law enforcement is one strategy employed in concert with public education, community forums and others which in total can change social norms.

Strategy – Training and Technology Transfer: The mandated 400-hour Basic Law Enforcement Recruit training is provided at the technical colleges. Of the 400 hours, only 12 hours are allotted to traffic enforcement training. Employer-based programs such as the State Patrol Academy and the cities of Madison and Milwaukee require more hours of basic training including additional traffic enforcement training. The State Patrol course lasts 23 weeks or 920 hours, including extensive traffic enforcement training and skills development. The Academy also provides a one-week Basic Crash course for officers who want to improve their traffic enforcement skills and offers advanced course such as crash dynamics or advanced crash investigation.

Strategy – Community Empowerment: At the community level, Madison's model traffic enforcement team, the Traffic Enforcement and Safety Team, was developed because of community concern with speeding and other unsafe traffic behaviors. A project supporting the Brown County Community Traffic Team and a proposed second team is developing general written guidelines for Traffic Team projects, including community support, activity and participation criteria, and establishing willingness and capability to financially support this project after highway safety dollars are expended.

Strategy – Enactment of laws, ordinances, policies and procedures: Several statewide professional associations and organizations provide both social and political networks and can also serve as legislative lobbyists. The judicious selection of associations and organizations to target as vital actors in Wisconsin's plan for these belt use enforcement campaigns is an efficient means of reaching a large number of officers in all types of enforcement agencies.

#### D. CRITERIA FOR PROJECT SELECTION

Priority for Traffic Law Enforcement funding will be given to the counties and communities: (1) with populations in excess of 10,000 and with many highway miles and other exposure factors (See table 00-10); (2) with the most total crashes or crashes of a particular type with serious injuries and deaths and/or a high injury to death ratio (See table 00-11); (3) demonstrating willingness to coordinate safety strategies, programs and funds; (4) demonstrating willingness and ability to commit local funding and other match, and to sustain the effort without Highway Safety funds; (5) with a plan to evaluate the effectiveness of their enforcement activities; and (6) with a history of using Highway Safety funds effectively.

Smaller communities may be eligible if they demonstrate problems of unusual scope or usual buy-in and effectiveness in implementing past Highway Safety projects.

## PROGRAM OBJECTIVES

**Objective 1:** To decrease the number of speed - related crashes to 16,280 by end of 2003; decrease fatalities to 223 by CY 2003; and decrease incapacitating (A) injuries to 1,307 by the end of CY 2003.

Performance Measure: The number of speed-related crashes in which at least one driver received a citation for speeding, or for which PCCs including one or more speed-related cause were recorded by the responding law enforcement officer; the number of fatalities and incapacitating injuries sustained in such crashes.

Baseline: In 1994, 24,809 or 14.6% of all crashes, 242 or 15% of all fatalities and 2,231 or 17.7% of all injuries were speed-related. Three-year average for 1994-1996 was 24,598 or 15% of crashes, 223 or 14% of fatalities and 2,051 or 17.9% of injuries.

Status: In 2001, 248 people were killed and 1,452 people sustained incapacitating injuries in 18,089 crashes for which speed was a possible contributing circumstance.

**Objective 2:** To decrease the number of fatal and incapacitating aggressive driving-related K&A crashes to 3,620 by the end of CY2003; decrease fatalities and incapacitating injuries resulting from these crashes to 6,881 by end of CY 2003.

Performance Measure: The number of aggressive-driving-related crashes in which at least one driver received a citation, or for which PCCs including one or more aggression-related behavior were recorded by the responding law enforcement officer; the number of fatalities and incapacitating injuries sustained in such crashes.

Baseline: In 1994, 2,987 or 41.8% of all fatal and incapacitating crashes, and 4,219 or 45.3% of all fatalities and incapacitating injuries were aggression-related. Three-year average for 1994-1996 was 2,716 or 40.9% of fatal and incapacitating crashes, and 3,847 or 44.4% of fatalities and incapacitating injuries.

Status: In 2001, 2,784 people were killed and 2,040 sustained incapacitating injuries in K&A crashes for which driver aggressive behaviors were possible contributing circumstances.

**Objective 3:** To decrease the number of rural crashes to 56,794 by end of CY2003; decrease associated fatalities to 595 by end of CY 2003 and decrease injuries to 25,980 by end of CY 2003.

Performance Measure: The number of reportable crashes in which the responding law enforcement officer recorded the crash as occurring in a rural location; the number of fatalities and injuries sustained in such crashes.

Baseline: In CY1994, 69,749 rural crashes resulted in 566 deaths and 5,033 injuries. The 1994-1996 three-year average was 68,836 crashes, 594 deaths and 4,744 injuries.

Status: In CY 2001, 59,783 rural crashes resulted in 626 deaths and 24,685 injuries.



## Table of STRATEGIES & ACTIVITIES

### STRATEGY -- ADMINISTRATION

#### Activity: 03-04-01-PT POLICE TRAFFIC SERVICES PROGRAM MANAGEMENT

**Problem:** Short and long-term planning and management of the Police Traffic Services Program and activities in Wisconsin.

**Objectives:** Administer the Police Traffic Services Program, including project development and implementation, training development and implementation, coordination of special projects, BOTS representative to the Traffic Law Enforcement Task Force, Advisor to the Wisconsin Traffic Safety Officers Association and promotion of law enforcement (LE) information on technology and tools, participation in conferences, training, and on appropriate committees.

**Resources:** \$65,000 for 1.0 FTE, travel, training, DP, M&S.

**Self - Sufficiency:** None.

**Evaluation:** Compare program objectives and planned activities with accomplishments and comment on reasons for success or lack thereof. Quarterly and final reviews and Annual report.

### STRATEGY -- EDUCATION – Public Information & Education

#### Activity: 03-04-02-PT PUBLIC INFORMATION AND EDUCATION CAMPAIGNS

**Problem:** Perception of risk through effective mass media has been shown to improve the immediate and long-term effectiveness of enforcement campaigns. The "Elmira" model of waves of publicity and enforcement has been successful for more than 20 years. All enforcement activity will include a publicity campaign that precedes the activity and has a message relating to the presence of enforcement patrols and their immediate-high probability consequences, whether the patrols occur in waves or as general deterrence activity. No materials have been developed that are directed to highest risk groups (young male drivers) for speed-related crashes. Driver aggression and driver distraction materials are also lacking.

**Objectives:**

1. To coordinate PI&E with national mobilizations and state enforcement deployments.
2. To develop materials/ campaigns directed at highest risk drivers for speed and aggression.
3. To reach 25% of the target audiences with appropriate messages and change the behavior of 10% of them.
4. To reproduce and distribute existing materials.

**Resources:** \$80,000 for contract for services, production, printing, postage and evaluation.

**Self- Sufficiency:** If special local identifiers are needed the community or organization will cover that portion of the printing unless it is incorporated into a specifically approved project.

**Evaluation:** BOTS PI&E Evaluation Administrative- number of persons receiving messages. Impact: survey changes in KAB

## STRATEGY -- EDUCATION – Training

### Activity: 03-04-03-PT LAW ENFORCEMENT TRAINING

**Problem:** Specialized traffic law enforcement training is needed on a continuous basis because of turnover of new traffic officers, changes in laws, social attitudes and behaviors and of availability of new enforcement tools, technologies and techniques. At this time there is no database of traffic officer training in WI.

**Objectives:**

1. To train at least 50 law enforcement officers and other emergency workers on the potential hazards of undeployed air bags at the scene of motor vehicle crashes.
2. To inform 100 law enforcement management and traffic patrol officers about speed and other aggressive driving "best practices" deployments.
3. To support attendance of 6 officers representing large associations at specialized traffic safety conferences.
4. To support meetings of the Traffic Law Enforcement Task Force.
5. To support the rejuvenation of the Traffic Officer's Associations.
6. To provide law enforcement traffic management with improved briefing tools.

**Resources:** \$ 45,000. \$3,000 for airbag training, \$7,000 for speed/aggression training, \$8,000 for LE attendance at conferences, \$6,000 for TLE Task Force meetings and events, \$15,000 for WTSOA reorganization, Annual Conference and meetings; \$6,000 for management briefing tools (fees, travel, and curriculum development, meeting expenses.)

**Self - Sufficiency:** On going activity. Match (hard and/or soft may be required).

**Evaluation:** Administrative. Trainees complete evaluations. Pre/ Post KAB tests. Curriculum may also be evaluated.

## STRATEGY -- EMPOWERMENT – Community Program

### Activity: 03-04-04-PT Pilot Community Coordinated Enforcement Program

**Problem:** Traffic law enforcement is a strategy for decreasing crashes, injuries and deaths that is most effective when combined with other strategies and integrated into community program during FY2003, the Highway Safety Office will evaluate a Request for Proposal (RFP) process for Highway Safety grant planning and will pilot test five types of projects including one for Umbrella Community Law Enforcement Activities. If successful, the process will be instituted for the 2004 Highway Safety Plan.

**Objectives:** To pilot test an RFP process for Umbrella Community Law Enforcement Activity grants in one community.

**Activities:** BOTS will work closely with the selected community and will document the processes, problems and solutions, for the development of a process for allocating grants for effective coordinated community traffic law enforcement activities.

**Resources:** \$20,000 for accepted project which may include but is not limited to any wage and fringe, M&S (equipment from approved list), other M&S, as justified by pilot community. 25% Match (hard or soft) is required.

**Self - Sufficiency:** Pilot process only.

**Evaluation:** BOTS evaluation of the RFP process and the effectiveness of the umbrella grant for law enforcement.

## STRATEGY -- ENFORCEMENT

### Activity: 03-04-05-PT TRAFFIC LAW ENFORCEMENT

**Problem:** In 2001, speed was listed as a contributing cause in 18,089 (14.4%) of the 125,403 total crashes, and was a contributing cause in 32% of all fatal crashes. While more people were injured in urban crashes, more people were killed in rural crashes in 2001. More people were injured or killed in intersection crashes than were injured or killed in non-intersection crashes even though non-intersection crashes occur more often.

**Objectives:**

1. To reduce the incidence of speed - related crashes by 10% to 16,280, association fatalities to 223 and incapacitating injuries to 1,307 and 15% reduction in speed-related crashes in project communities by end of CY2003.
2. To reduce statewide incidence of driver-aggression caused crashes, fatalities and injuries by the end of CY2003.
3. To fund at least 6 rural speed enforcement projects in counties where the 2000 Injury/Death ratio was at least 30.0 and not to exceed 49.0 and where the County Sheriff's Department did not appear on crash data for other speed enforcement projects.
4. To continue funding a Brown County Community Traffic Team (three officers) and plan for a second team, general written guidelines for Traffic Team projects, including community support, activity and participation criteria, and establishing willingness and capability to financially support this project after highway safety dollars are expended. This is perceived to be a three year pilot with a graduated decrease in highway safety dollars.

**Activities:**

1. 20 Speed Enforcement Projects consisting of overtime enforcement, purchase of enforcement related tools or a combination of both.
2. 10 Driver Aggression/ Red Light Running Projects consisting of overtime enforcement, purchase of enforcement-related tools, or a combination of both.
3. 6 Rural Speed Enforcement Projects consisting of overtime enforcement, purchase of enforcement related tools or a combination of both
4. Continue supporting the Brown County Traffic Team.

**Resources:** \$500,000 for wage and fringe (OT enforcement), M&S (equipment from approved list).  
**\$178,000 for 15 speed enforcement projects**  
**\$36,000 for 10 driver aggression/ red-light running projects**  
**\$36,000 for 6 rural speed enforcement projects**  
**\$250,000 for 3 salaries for Brown County deputies**

**Self - Sufficiency:** Grant recipients must provide plan for self sufficiency in project application.

**Evaluation:** Enforcement Activity Report Forms monthly BOTS administrative evaluation based on officer reporting on MV4000, Citation Form, and other reporting forms.

## 03-05 TRAFFIC RECORDS

**Program Goal:** To coordinate the development and improve the use of Wisconsin's highway safety information systems to support the planning, operational management or control and evaluation of Wisconsin's highway safety activities.

### FUNDS

TRAFFIC RECORDS 05						
Activity	Title	Fed	State	Local	Tot Prog	Loc Benefit
03-05-01	Program Analysis	120,000	20,000	0	140,000	30,000
03-05-02	Data Linkage	100,000	12,000	1,000	113,000	25,000
03-05-03	Data Distribution Analyses	75,000	5,000	5,000	85,000	18,750
<b>402 TOTAL</b>	<b>(TR)</b>	295,000	37,000	6,000	338,000	73,750
03-05-04	411 Strategic Planning	25,000	15,000	12,000	52,000	6,250
03-05-05	Crash Data Improvement	120,000	50,000	75,000	245,000	30,000
	Location Data Improve	25,000	20,000	25,000	70,000	6,250
	Injury Data Improvement	10,000	5,000	1,000	16,000	2,250
<b>411 Total</b>	<b>(J9)</b>	180,000	90,000	113,000	383,000	44,750
03-43-01	CODES Demonstration	60,000	2,000	0	62,000	0
<b>403 Total</b>	<b>(DX)</b>	60,000	2,000	0	62,000	0
State 461	State Policy Analysis	0	221,000	0	221,000	0
<b>State</b>	<b>(461)</b>	0	221,000	0	221,000	0
<b>TOTAL</b>	<b>ALL FUNDS</b>	535,000	350,000	119,000	1,004,000	118,500

### PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

An important function of government is to provide timely, accurate, complete and replicable data for policy development and program and project selection. A "performance plan" requires good information on which to base program and project selection, and baseline information and post-program analyses from which to measure the effectiveness of programs and projects into which public funds have been distributed.

Behavior is difficult to characterize, and behavioral change is difficult to quantify and analyze. Planning and evaluating behavior change requires sophisticated analyses of data from a variety of sources. These analyses are applied to long-term processes with multiple intervening factors. Information about knowledge, attitudes and behaviors of target populations is vital for planning for behavioral change strategies.

Traffic Records Assessment and Traffic Records Coordinating Committee: In 1999, a NHTSA/NAGHSR Traffic Records Assessment was completed for Wisconsin. Major recommendations of the assessment were: create and formalize a state traffic records group with state and local representation; initiate an on-going traffic records planning process; provide

training and promote a user-friendly data access system; adopt a common reference system; ensure currency of conviction data; continue support of automated ambulance run system and get legislative mandate for ambulance run data collection.

The State Traffic Records Coordinating Committee (TRCC) was established in 1999, has met quarterly during since 2000 and developed a *State of Wisconsin Traffic Records Strategic Plan*. The Strategic Plan incorporated many of the Assessment team's recommendations, added areas not considered in the federal assessment process, and selected priorities based on the Committee's understanding of WI resources and challenges. While the Strategic Plan did not assign priorities to the records improvements initiatives it listed, the TRCC established the following three priorities for the state: (1) automate the state crash form and process (and relate that automation to other law enforcement automation initiatives); (2) improve and automate the collection of crash and citation location information; and (3) improve the records of post-crash treatment, outcomes and costs.

(1) Automate Data Collection: Technology for improved data collection, management and analysis is now improving at geometric rates. Computer technology which was prohibitively expensive and slow just a few years ago now is becoming industry standard for many data uses. The Traffic Accident Section of the Division of Motor Vehicles has taken the lead on automating the MV4000 crash form, and is developing the National Model TraCS software to meet the needs and limits of the state's traffic records system. A pen-based palm or tablet data entry system for observational data is currently being developed and will be made available to communities statewide to local surveys of safety belt use, helmet use, computers for observational and other survey data collection.

(2) Improve Locational Reference: A common reference system for all safety related databases, using Geographical Information System (GIS) software is a powerful means of coordinating and analyzing the relationships among the many sources of data necessary for investigating the multiple, intersecting factors which underlie human behaviors. BOTS has collaborated with the WisDOT Division of Transportation Districts and Marathon County, with Brown County Regional Planning Commission and with the City of Madison Traffic Engineering and the Dane County Safe Community Coalition to test and demonstrate the usefulness of GIS systems with GPS crash and citation locations. The needs of the transportation system must be integrated with the needs of the law enforcement agencies, which collect the data and the other partners in the state public health, public safety and emergency management systems.

Local Roads Data: Although Wisconsin's traffic records system is largely excellent, it provides limited data about roadways of local jurisdiction on which more than half of Wisconsin's crashes occur. The Wisconsin Information System for Local Roads (WISLR) now being programmed by WisDOT will include location reference data, but has no immediate plans to provide for programming of safety data. The WISLR system is built on a GIS framework analogous to the state trunk network database, but is not identical. Unfortunately, the level of detail of the WISLR and STN GIS systems is not adequate for many local safety functions and it will be difficult to overlay the sophisticated and finely detailed local coverages for highway safety analysis.

(3) Linked Data and Medical Outcome Data: Evaluation of Wisconsin's existing CODES in-patient discharge data and mortality file linkage to crash records demonstrated the value of linked databases containing information crash characteristics, treatment from the scene to discharge and medical outcomes and charges. Work on automated databases using national standard data elements is underway for all of these databases. The ambulance run system is being reevaluated by the state EMS Board and may require major revisions, especially in light of bioterrorism priorities; and the Department of Health & Family Services began collecting Emergency Department data in January 2002.

Metadata: Traffic records collectors and users at all levels have limited understanding of the strengths and weaknesses of their data, the opportunities to combine or coordinate databases, or even in most cases, the simplest descriptive uses of these data, let alone inferential uses. The Traffic Records Strategic Plan recommends including data dictionaries and other metadata into standard reports.

Access: Community activists and safety professionals in all except the largest venues have limited access to traffic records and other injury-related information to assist them in their community safety planning. Improved access at the state level will require increased numbers of trained data miners using SAS, easy access to standard reports, knowledge of sources for ad hoc reports and Internet access to all types of data. BOTS has made its annual Crash Facts and Fact Sheet publications available on the WisDOT Internet site, is researching including 5-year flat file community crash reports on the site and supports the UW Center for Health Systems Research and Analysis (CHSRA) CODES Internet site which provides CODES and E-Codes reports for communities.

Social Marketing Analysis: Few studies have been performed on the effects of behavior marketing safety interventions on knowledge, attitudes or behavior. No baseline data exist. Wisconsin has worked with the UW School of Business to study the at-risk 21 to 34 year old drinking driver, and has applied for a demonstration grant to apply social marketing techniques to this population during 2002. Thorough study of the test communities may provide insight for more successful programming in several communities for this at-risk group. These analyses can then be applied to other high-risk behaviors and interventions.

Large Truck Data: All data used in the Motor Carrier Safety Assistance Program is derived from the Truck/Bus supplement to the WI Police Crash Report, which is gathered and maintained by the State Patrol. BOTS is currently leading a Department-wide team to explore data needs for large truck safety. Commercial vehicle data collected by the Patrol through Safetynet is not being integrated with crash and other DOT data, and the Division of State Patrol does not have the resources to collect and use these data. The creation of a Large Truck Crash Facts publication (print and internet) will set up the necessary administrative and analytical processes and procedures for continuing collection and distribution of these widely useful data.

## PROGRAM OBJECTIVES

**Objective 1: To promote data-driven highway safety decision-making in Wisconsin by state and local organizations and data users during FFY 2003.**

Performance measures: Number of documented instances of use of crash, vehicle, driver, citation, linked hospital or other records used in WisDOT or other state or local agency decision-making processes. Number of trained data users.

Baseline: In 1994, WisDOT's Highway Safety Performance Plan, State Highway Plan, and some local Safe Communities program planners used many of these data sources. Program managers and local safety professionals have not had Traffic Records training. Analyses not performed.

Status: In 1999, a Traffic Records Assessment was performed, the WI TRCC has met quarterly, a 2000 TR Strategic Plan was published and was updated for 2002. Few program or project evaluations have been performed. No training has been made available.

**Objective 2: To ensure vigorous participation of all interests in the State Traffic Records Coordinating Committee and to use the TRCC's Traffic Records Strategic Plan recommendations as the basis for decision-making about highway safety information systems, including the programming of 402 and 411 funds during FY2003.**

Performance measure: Level of participation by interested parties in meetings of Traffic Records Coordinating Committee. Number of *Strategic Plan* recommendations for which action has begun.

Baseline: In 1999, a State Traffic Records Assessment was performed, and a TR Coordinating Committee was established.

Status: 2002 HSP incorporates recommendations from the 2000 TR Strategic Plan. 2001 Strategic Plan under development with updated and operationalized objectives.

**Objective 3: To improve crash and outcome reporting by increasing use of linked reports, by extending location data and VMT collection to local roads and by increasing the linkages to coroner, ambulance run and emergency department databases during FFY 2003.**

Performance measure: Number of communities and agencies using linked reports for highway safety purposes. Proportion of WI roadways for which location data and VMT are collected. Number of linkable databases.

Baseline: In 1994, BOTS provided 200 linked hospital discharge/ crash reports to Wisconsin communities. Wisconsin collected location data and VMT on State Highways only (55% of crashes occur on other roadways). Only crash and hospital discharge databases are currently linkable. Limited VMT collection on local roads.

Status: The WEMSIS statewide voluntary computerized ambulance run system project encountered problems and was discarded by the State EMS Advisory Board. The mandated automated state Emergency Department database began data collection in 2002. The Wisconsin Information System for Local Roads is on schedule but development of the safety information component is not scheduled.

**Objective 4: To encourage emerging technologies approved by FHWA and WisDOT to improve collection and/or processing and/or dissemination of traffic safety information.**

Performance Measure: Approved study completed, and information disseminated.

Baseline: In 1994, several communities (Dane County, Sun Prairie, Brown County, Eau Claire) were testing new technologies for crash data collection and communication.

Status: In 2001, Sec. 153 and Sec. 164 funds were used to support three projects to demonstrate GIS, GPS and AVL technologies for crash and citation location for enforcement, engineering and safe communities. Results will not be available until 2002.

## Table of STRATEGIES & ACTIVITIES

### STRATEGY -- ADMINISTRATION

#### Activity: 03-05-01-TR PROGRAM MANAGEMENT and SAFETY ANALYSES

**Problem:** Problem identification, program and project development and analysis, and database development requires skilled analysts who are knowledgeable about the data. Project data must be received, entered, analyzed and returned in a timely fashion for local as well as state project and program analysis.

**Objectives:**

1. To assist in the development of Highway Safety Plans and Reports
2. To develop and perform analyses of programs and projects.
3. To develop more accessible and user-friendly reports and media.

**Resources:** \$120,000 for 1 FTE Safety Analyst, 1 FTE Data Entry Assistant, DP, travel, M&S.

**Self-sufficiency:** 3.0 FTE Safety Policy Analysts, 0.5 FTE Safety Analyst are state funded

**Evaluation:** Administrative

#### Activity: 03-05-05-J9 STRATEGIC PLAN REVIEW and REVISION: Implementation of Year 2000 Strategic Plan –411 funded

**Problem:** Wisconsin's TRCC Committee meets quarterly to communicate about safety data improvement, oversee the implementation of the Strategic Plan for Traffic Records Improvements, recommend distribution of Sec. 402 and 411 funds to high priority initiatives and review and revise the Plan as necessary.

**Objectives:**

1. To review and revise the year 2002 Strategic Plan by December 2002.
2. To continue implementing the Strategic Plan during 2002-3.
3. To continue studying the most effective strategies for records improvements.

**Resources:** \$15,000 for wage & fringe or contractual services, travel and subsistence for committee meetings and for presenters, M&S for meeting support, and the remainder to be distributed in support of the plan.

**Self-sufficiency:** Institutionalization of traffic records/public safety information systems coordination is a top priority of the strategic plan.

**Evaluation:** Administration – notes of meetings, including decisions, distribution of Strategic Plan, determine use made of Strategic Plan.

#### Activity: SAFETY POLICY ANALYSIS - state appropriation 461

**Problem:** Because of State Highway Safety Office integration within umbrella Department of Transportation, many policy and legislative initiatives have safety implications that are behavioral safety in scope. The Safety Policy Analysis Section provides expertise to WisDOT about safety data, analyses and policy development.

**Objectives:**

1. Produce policy studies and analyses at request of Secretary's office, other WisDOT units, or Legislature.
2. Perform ad hoc and legislatively mandated safety and program analyses.
3. Produce annual crash facts publications and fact sheets
4. Support Planning & Administrative efforts of SHSO staff



**Resources:** \$227,500 to support Section chief, policy analyst and research analyst.

**Self-sufficiency:** State funded permanent positions.

**Evaluation:** Annual Report. Strategic Business Planning Process.

## STRATEGY -- EVALUATION – Data System Improvements

### Activity: 03-05-02-TR DATA IMPROVEMENTS-DATA LINKAGE

**Problem:** Much problem identification and program evaluation has used only fatality information and estimates of cost. Linkage of crash, EMS, ED and hospital discharge data can provide population-based data on medical outcomes and costs of treatment for injuries as well as fatalities. Linked data identifies and quantifies intervening factors and provides data quality assurance.

**Objectives:**

1. To obtain quality cost and outcome data for use in problem identification at the state and local level on an annual basis. Link 1999 crash extract files with 1999 hospital discharge files in summer 2001.
2. To produce summary report of findings of statewide linkage and 200 community reports, upon request.
3. To link automated EMS, ED and physician office visit data to crash and hospital records when available
4. To merge state Vital Records death data with crash data for 1999
5. To produce management reports, ad hoc reports, topical reports, presentations and 2 journal articles.
6. To update & maintain the Wisconsin CODES Internet site

**Resources:** \$100,000 for wage & fringe, DP, M&S

**Self-sufficiency:** May occur as funding permits state support of DH&FS Bureau of Health Information positions

**Evaluation:** Administrative. Describe uses made of CODES data.

### Activity: 03-43-01-DX CODES DATA NETWORK NATIONAL DEMONSTRATION GRANT - 403 funded

**Problem:** NHTSA is creating a network of CODES projects from among the 25 states that have initiated data linkage projects. Ten of the more advanced states, such as Wisconsin, will take the lead in developing this system of state databases that can provide summable data for questions of national interest.

**Objectives:** To assist in development of a national system of linked databases and provide quality data upon demand of questions of national interest posed by Washington.

**Resources:** \$ 85,000 (\$15,000 carryover and \$70,000 new grant funds for development, implementation and study of a national network of data linkages

**Self-sufficiency:** This is a multi-year demonstration grant. If successful, federal funds should be available for its continuation for at least the first years.

**Evaluation:** Administrative - process of development, implementation and use.

## STRATEGY -- EVALUATION -- Surveys and Studies

### Activity: 03-05-03-TR ANALYSIS: STATEWIDE HIGHWAY SAFETY KNOWLEDGE, ATTITUDE & BEHAVIOR (KAB) SURVEYS

**Problem:** Much societal and individual behavior change results from a slow process of incremental changes in knowledge and attitudes. This plan employs education as a major strategy throughout. Although Wisconsin's traffic records system is excellent, it provides limited information about the effectiveness of our efforts in bringing about the desired behaviors. Baseline data about KAB are sketchy at best. Much problem identification, program development and evaluation in this Plan is based upon outcome data rather than the more rationally linked KAB survey data and on the regular observation of road user behavior.

**Objectives:**

1. To develop a survey instrument and conduct a statewide survey during 2002
2. To assess public opinion and beliefs about traffic safety for program planning.
3. To use these results to develop and perform program and project analyses
4. To develop more accessible, effective and user-friendly reports and media campaigns.
5. To purchase and program pen-based computers for use in occupant protection, motorcycle rider, pedestrian, bicyclist and other observational surveys.

**Resources:** \$100,000. \$75,000 for development, implementation and assessment of a Statewide KAB survey; \$25,000 for purchase and programming of pen-based computers for observational surveys.

**Self-sufficiency:** These surveys are included in safety program administration. The KAB survey will be conducted biennially for trend analyses. The OP surveys are annual and no period has yet been determined for the other observational surveys.

**Evaluation:** Administrative - document development, implementation and use; evaluate effect of surveys on program effectiveness.

### Activity: 03-05-03-TR DATA DISTRIBUTION: LARGE TRUCK DATA ANALYSIS and PUBLICATION

**Problem:** NGA Truck/Bus data elements are collected by WI law enforcement officers, but these data are not entered into the WI crash database located in DMV/TAS. Instead, the hard copies are provided to the State Patrol to be entered into a separate db2 database. At this time, the persons creating standard crash reports do not have access to the names of the tables and files necessary to extract the NGA data. As a result, no summary reports have been generated.

**Objective:**

1. To develop management procedures for NGA truck/bus data in WisDOT files
2. To develop meaningful reports from the data that can be used by a wide variety of consumers
3. To correlate these data with truck/bus information in the WisDOT crash
4. To publish a multi-year report of these data, bringing them up to date, and to investigate including them in a separate annual report or integrated with the annual Traffic Crash Report.

**Resources:** \$10,000 for continuing effort; analyst, DP, M&S, printing

**Self-sufficiency:** Will be on-going portion of WI traffic records.

**Evaluation:** Administrative.

## STRATEGY -- EVALUATION – Data System Improvements

### Activity: 03-05-06-J9 DATA IMPROVEMENTS - AUTOMATED CRASH REPORT: Implementation of Year 2002 TR Strategic Plan –411 funded

**Problem:** Wisconsin's State Traffic Records Coordinating Committee gave top priority to automating the crash data system. Wisconsin is one of 10 states participating in the Iowa National Model enhancements; WI is programming linkages to legacy systems without redesigning its crash data form or its data system. This project is planned to occur in three phases; the first began in 2001.

**Objectives:** 1. To automate the Wisconsin crash data system; support additional improvements to it.  
2. To review and revise the year 2000 strategic plan as necessary based upon experience in implementing it and on continued research into most effective strategies for records improvements.

**Resources:** \$150,000 for wage & fringe or contractual services for programmers to adjust TraCS National Model to WI data system, training, travel for programmers and for officers.

**Self-sufficiency:** Institutionalization of traffic records/public safety information systems coordination is a top priority of the strategic plan.

**Evaluation:** Administration – notes of meetings, including decisions, distribution of Strategic Plan, determine use made of Strategic Plan.

### Activity: 03-05-06-J9 DATA IMPROVEMENTS – IMPROVEMENTS in CRASH LOCATION and CRASH RESPONSE DATA: Implementation of Year 2002 TR Strategic Plan –411 funded

**Problem:** Wisconsin's State Traffic Records Coordinating Committee gave high priority to improving location data collection and use of new technology for efficient and accurate data collection. Automated data collection about crash location, entered automatically into crash and EMS run reports will improve timeliness and quality of these data.

**Objectives:** To automate crash location data and EMS response data by incorporating GIS mapping and GPS location into the crash data and EMS data systems.

**Resources:** \$50,000 for GIS mapping improvements locally and for purchase of GPS or AVL units for squads or ambulances as pilot tests for statewide deployment.

**Self-sufficiency:** Depends upon perception of value by state and local collectors and users of location data.

**Evaluation:** Administrative – document experience in setting up system; impact: document times, locations, other information indicating speed and accuracy of data collection.

### Activity: 03-05-06-J9 DATA IMPROVEMENTS – IMPROVEMENTS in INJURY DATA: Implementation of Year 2002 TR Strategic Plan –411 funded

**Problem:** Because KABCU information collected on the scene by enforcement officers is not an accurate reflection of the real severity of crash injuries, Wisconsin's State Traffic Records Coordinating Committee gave high priority to improving EMS, Emergency Department and other outcome data collection systems. Some improvements are underway during 2001.

**Objectives:** To automate EMS response, Emergency Department and other health care and outcome data and to incorporate GIS mapping and GPS location into the crash data and health care response data systems.

**Resources:** \$50,000 for health care system data improvements, GIS mapping and for purchase of GPS or AVL units for ambulances as pilot tests for statewide deployment.

**Self-sufficiency:** Depends upon value to state and local collectors and users of location data.

**Evaluation:** Administrative – document experience in setting up system; impact: document times, locations, other information indicating speed and accuracy of data collection.

### 03-06

## INJURY CONTROL -- EMERGENCY MEDICAL RESPONSE

**Program Goal:** To improve crash survivability and injury outcome by improving the availability, timeliness and quality of EMS response and by improving state and community support for EMS.

National priorities for EMS will stress integration of routine EMS response capacity with terrorism readiness resources, including improving surveillance and data collection and strengthening EMS systems through collaboration with public health. During FY2003, the national program will continue to focus on the strategic plan laid out in the EMS Agenda for the Future (1996), encouraging EMS professionals to conduct community injury prevention activities, and pursuing the vision of the Trauma System Agenda for the Future (April, 2002).

### FUNDS

INJURY CONTROL - EMERGENCY RESPONSE 06						
Activity	Title	Fed	State	Local	Tot Prog	Loc Benefit
03-06-01	Pl&E	65,000	20,000	10,000	95,000	32,500
03-06-02	First Responder Train	30,000	2,000	20,000	52,000	15,000
	Buckle Up Kids	20,000	2,000	8,000	30,000	10,000
	ALERT Training	25,000	3,000	15,000	43,000	12,500
	EMS Communicator Trn	20,000	30,000	15,000	65,000	10,000
	QI Workshops	10,000	3,000	5,000	18,000	5,000
	Public Health/Hwy Safety	10,000	3,000	5,000	18,000	5,000
03-06-03	Community Programs	20,000	2,000	10,000	32,000	20,000
03-06-04	Ambulance Inspection	5,000	5,000	2,000	12,000	1,250
402 TOTAL	(EM)	205,000	70,000	90,000	365,000	111,250

### PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

EMS is a vital public service, a system of care for victims of sudden and serious illness or injury. This system depends on the availability and coordination of many elements, ranging from an informed public capable of recognizing medical emergencies to a network of trauma centers capable of providing highly specialized care to the most seriously ill or injured. The 9-1-1 emergency number, search and rescue teams, and well-trained and equipped pre-hospital and emergency department personnel are some critical elements of an EMS system.

#### A. NEED for QUALITY EMERGENCY MEDICAL RESPONSE:

In April 2001, the NHTSA Reassessment Program assisted Wisconsin in measuring its progress since the state's 1990 EMS assessment. The Reassessment Program followed the same process and the same ten component areas as the original 1990 assessment. However, the assessment standards were updated to reflect current EMS philosophy and to allow for the evolution into a

comprehensive and integrated health management system, as identified in the 1996 *EMS Agenda for the Future* (NHTSA, 1998). The Technical Assistance Team was impressed by the great progress made since 1990 and also by the unusual dedication of Wisconsin EMS professionals and volunteers, but noted that funding and personnel at the state level were still not secure.

In the aftermath of September 11, improvements in funding, coordination and collaboration of "first responders," including police, fire and EMS as well as local communications systems and medical facilities, became a top national priority. Nationally, coordination has been slow in coming and at the state level, multiple committees, task forces and agency groups have been convened, but state policies and plans are not yet available. Preparation for response to bioterrorism, terrorism and mass casualty events as well as normal ambulance run business is likely to increase the responsibility of local ambulance and health care providers. Funding for them has been piecemeal.

The Wisconsin Legislature approved the State Trauma Plan, but as yet has provided no stable source of funding. Most EMS functions do not have stable funding in this state. The State Trauma Advisory Committee is continuing its development of the trauma system through a series of Regional Trauma Advisory Councils (RTACs). These RTACs are intended to be the focus of trauma system development, with local providers coordinating their activities within the state Trauma System framework.

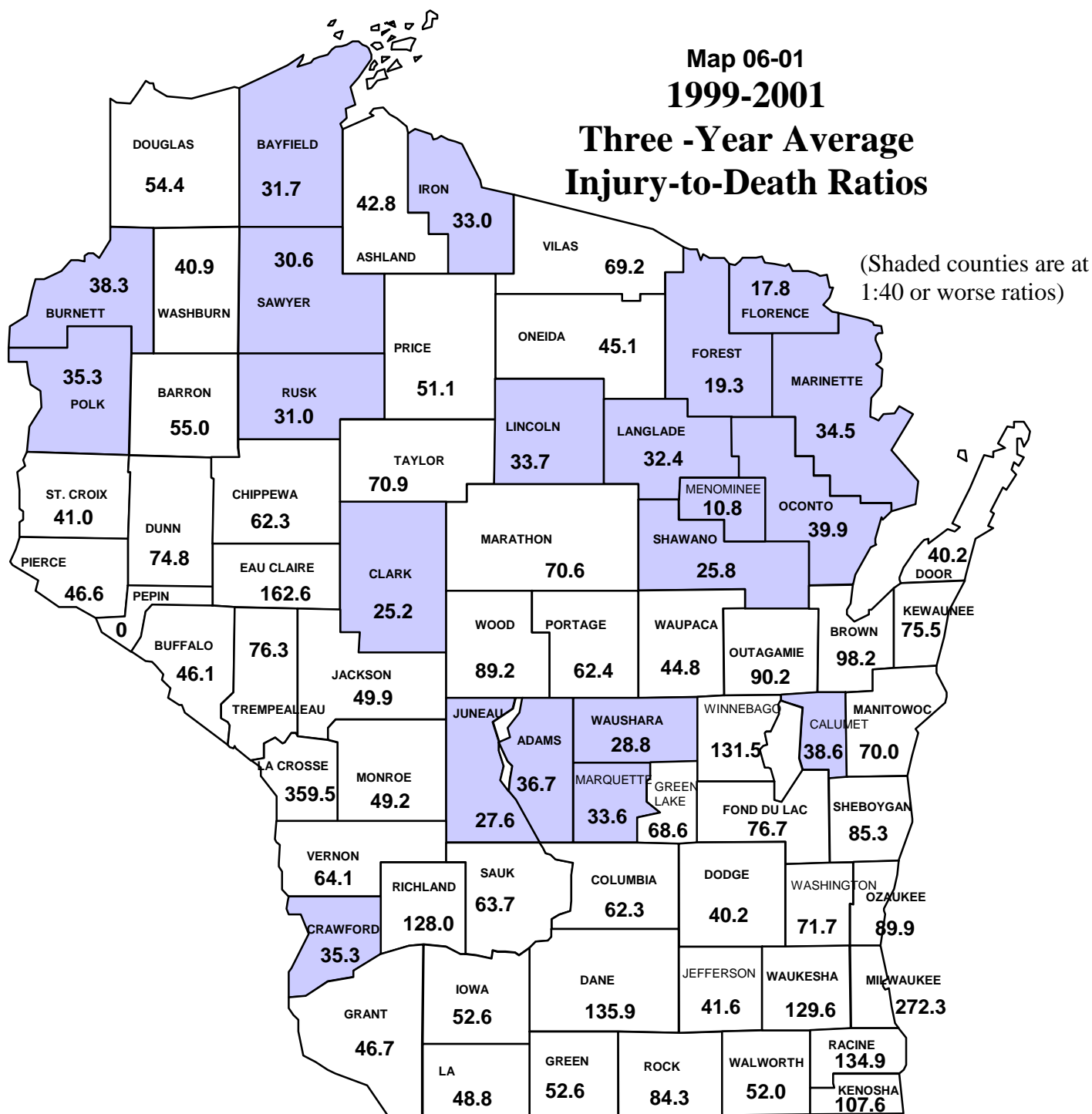
#### B. RISK FACTORS for POOR OUTCOMES from CRASH-RELATED INJURY:

Qualified dispatch: Not all Emergency Medical Communicators (EMC) in Wisconsin have received appropriate EMS dispatch training. One of the major barriers is providing time for EMC's to attend training. Legislation is also being pursued to require certification and standardized training of Emergency Medical Communicators.

Access to appropriate level of care: Rural areas do not have the same level of care available as do the large metropolitan areas. Paramedic units tend to be in the metropolitan areas, the two major trauma centers are located in Madison and Milwaukee, although crash victims from the western part of the state may go to Minnesota trauma centers.

Timeliness of Response: Response time to scene and transport times to hospitals are longer in rural areas. The great variety of Injury-to-death ratios in Wisconsin may reflect long response times, distance to appropriate trauma centers, as well as the nature of crashes on rural two-lane roads. See Map 06-01 for Injury to Death Ratios by County.

Overlapping responsibilities: The public health, Injury Prevention and Highway Safety communities have areas of overlapping responsibility, but have not institutionalized a means of coordinating resources and eliminating duplication of effort. Motor vehicle injury has been recognized as one of three top injury issues to be addressed in the *Turning Point Public Health Plan for the Year 2010*. Whether the public health community will reach out to the public safety and highway safety professionals under this plan remains to be seen.



2001 State Average Injury to Death Ratio is 79.5

(For every 79.5 people injured in crashes, one died.)

Retention of volunteers: Eighty percent of Wisconsin's 16,000 EMT's are volunteers. There are 425 ambulance providers in Wisconsin and at least half of them need more volunteers. Wisconsin communities are struggling to have two or more people on call at all times because most people don't know that there is a shortage of EMT's, the average person doesn't think he can handle the work, and people are not volunteering as much as in the past. Also, the many small-town and rural volunteer services are generally at the EMT-Basic level and do not have the funds or available time to pay for trauma skill training and refresher training.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

Coordination: Integration of EMS and public health with Safe Communities leadership and activity, coordinate of public health and safety planning and activities, coordinate public health and safety data and communications. Improve integrated public safety data/communications systems.

Education-Training: Train and equip First Responder groups in high-risk locations. Provide skills development for dealing with crash scenes and crash-related injuries, and skills development for crash injury prevention activities. Provide training to Emergency Medical Communicators via distance learning to reach more people who do not have the time or resources for long-distance travel.

Wisconsin's 2001 NHTSA EMS Reassessment made the following recommendations for the State of Wisconsin. The Bureau of EMS and Injury Prevention (BEMSIP) was recognized as the state's lead agency for EMS. Working with BEMSIP and the State EMS Advisory Board and EMS for Children Board, BOTS has selected those recommendations that are most transportation safety-related to include in the Highway Safety Plan.

A. Regulation and Policy The State of Wisconsin should assure an adequate, stable and ongoing source of funding and personnel resources for the Bureau of EMS and Injury Prevention. Examples from other states include an assessment on motor vehicle registration, a fee on driver's licenses, an assessment on moving traffic violations and a variety of others.

B. Resource Management Secure stable funding sources to ensure adequate staffing for resource management activities including, but not limited to: Technical Assistance; Data Support, Collection, and Analysis; First Responder Certification; Dispatch/Communication Program

C. Human Resources and Training No progress has been made in implementing standardized training, licensure, and certification of Emergency Medical Dispatchers. Evaluate the compliance of the Wisconsin EMS education system with the *EMS Education Agenda for the Future* and make specific recommendations to ensure that the Wisconsin EMS education system is consistent.

D. Transportation Obtain legislative authority to establish comprehensive regulations for air, water and ground EMS services. Support the proposed rule allowing one EMT-Paramedic per EMT-Paramedic ambulance.



E. Facilities Initiate a process to document what is already known about the capabilities of all hospitals that interface with Wisconsin EMS.

F. Communications Pursue statutory training and licensure standards for EMS dispatchers and dispatch centers to include funding for program support and personnel.

G. Trauma Systems Identify or develop and fund an acceptable and consistent statewide trauma systems registry. Continue to pursue dedicated funding for implementation and operation of the trauma system.

H. Public Information and Education The Bureau of EMS and Injury Prevention should develop a broad-based public information and education plan that targets, in part, policy makers and the general public. Among other topics, this should address emergency medical services and trauma systems.

J. Evaluation Seek the authority for the Bureau of EMS and Injury Prevention to mandate that EMS provider agencies submit specific data elements to a central repository. Conduct a NHTSA Leadership Workshop for Quality Improvement. Develop and adequately fund the position of EMS data manager and technical consultant within the Bureau of EMS and Injury Prevention. Develop the Wisconsin Emergency Medical Services Information System (WEMSIS) as an internet-based EMS patient care report that would automatically populate the state's EMS database, enabling immediate queries at the Bureau of EMS and Injury Prevention and also limited queries by EMS provider agencies. Provide summary feedback information, derived from submitted data, in a predictable periodic manner to the state's EMS provider agencies.

#### D. PROJECT SELECTION CRITERIA

First Responder Training & Equipment Projects: Priority will be given to communities with (1) disproportionate number of crashes, injuries and fatalities; (2) low injury-to-death ratios; (3) long response time for ambulance service; (4) documented relationship with an ambulance provider and town or village.

Emergency Nurses Association Injury Prevention Projects: Priority will be given to communities with (1) documented crashes, injuries and fatalities, using local data; (2) available certified child passenger technicians.

Safe Community EMS Projects: Priority will be given to communities with (1) an identified and established Safe Community Coalition; (2) documented crashes, injuries and fatalities, low belt use or high improper child safety seat use or low injury-to-death ratio supported by local data; and (3) a new project (previously funded projects not eligible).

## PROGRAM OBJECTIVES

**Objective 1:** To improve coordination of statewide EMS and injury control activities, and to distribute EMS and highway safety resources to areas with worst injury-to-death ratios, greatest disproportion of deaths and incapacitating injuries, and lowest seat belt use.

Performance Measure: Compliance with NHTSA Assessment standards, and demonstrated distribution of funds to areas of highest need.

Baseline: In CY 1994, no statewide Trauma System existed. 1990 NHTSA EMS Assessment recommendations were being addressed by the Departments of Health and Family Services and DOT, and by the EMS Advisory Board. State average Injury-to-Death ratio was 94.1.

Status: In CY 2001, EMS Advisory Board met bi-monthly, legislation establishing a state Trauma System was passed. State average Injury to Death ratio was 79.5.

**Objective 2:** To improve ambulance run data capture and develop analyses useful for highway safety improvements.

Performance Measure: The completeness and accuracy of EMS reporting of MV Crash responses to the state. The usefulness of reports derived from these data.

Baseline: In CY 1994, ambulance run reporting was not automated statewide, no state requirement existed for providing reports to the state agency responsible for EMS, and no summary reports were generated.

Status: In CY 2000, the WEMSIS automated ambulance run system was operational and receiving the first approximately 5,000 voluntary reports from ambulance companies; however, there is still no requirement for reporting to the state agency but this is being considered. The State EMS Board will review the WEMSIS system over the next year and make recommendations for improvements.

## TABLE of STRATEGY & ACTIVITIES

### STRATEGY -- EDUCATION -- PUBLIC INFORMATION & EDUCATION

#### Activity: 03-06-01-EM EMS PUBLIC INFORMATION AND EDUCATION

**Problem:** EMS Providers do not have the budgets to develop and reproduce highway safety related EMS public information materials. They are a resource to distribute and provide the education in their local communities and are willing to get involved in the development of new materials.

**Objectives:**

1. To incorporate PI&E into EMS programming in accord with a long-range PI&E plan.
2. To develop new EMS related injury control/Safe Communities materials.
3. To reach 25% of the target audiences with appropriate messages and change the behavior of 25% of them.

**Resources:** \$65,000 for development, printing, reproduction, and distribution of materials.

**Self-sufficiency:** Communities will be expected to pay for reproduction of state-produced materials. EMS groups will distribute.

**Evaluation:** BOTS PI&E Evaluation Administrative- number of persons receiving messages. Impact: survey changes in KAB.

#### Activity: 03-06-02-EM FIRST RESPONDER EQUIPMENT & TRAINING

**Problem:** EMS response times for an ambulance in rural WI can be anywhere from 10-30 minutes. Transport times to a hospital can even be longer, depending upon the location of the call for service. These longer the time that a patient has to wait for medical personnel to arrive can have an effect on their outcome.

**Objectives:**

1. Provide initial training for 20-30 individuals of qualified First Responder organizations.
2. Provide startup equipment kits for 25 qualified First Responders.

**Resources:** \$30,000 for training and equipment.

**Self-sufficiency:** One-time funding. First Responder organizations will be required to provide continuing education and to replace equipment. EMS organizations will seek state funding.

**Evaluation:** Administrative evaluation. Activity Reports by First Responder organization.

#### Activity: BUCKLE UP KIDS/ SKIP TRAINING/ENA

**Problem:** Ambulance Providers do not have child safety seats to transport children in an ambulance when needed. They also may lack the proper training to install a child safety seat correctly in a vehicle or an ambulance.

**Objectives:**

1. Provide training to 75-100 EMS Providers on correct child safety seat use to increase correct child safety seat use to 50% by 2000.
2. Provide 2-4 day training for EMS Providers on correct child safety seat use.
3. Provide proper child safety seat for EMS Provider to use in ambulance upon completion of training.

<p><b>Resources:</b> \$20,000 for instructor and participant expenses, classroom materials, participant materials, meals, lodging and child safety seats.</p> <p><b>Self-sufficiency:</b> EMS Providers would maintain child safety seats and maintain skill and knowledge level on child safety seats.</p> <p><b>Evaluation:</b> Administrative. Pre/post test of knowledge of EMT's before and after training.</p>
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<p><b>ACTIVITY:</b>     <b>Airbag Lifesaving Education and Restraint Training (ALERT)</b></p> <p><b>Problem:</b>     Motor vehicles are being equipped with driver, passenger and side airbags. This offers protection to the occupants, but undeployed airbags can be dangerous for EMS, Fire rescue and law enforcement personnel who respond to the scene of a crash.</p> <p><b>Objective:</b>     Provide training to 200-300 EMS, fire rescue and law enforcement personnel on potential hazards and correct procedures when undeployed airbags are found at crash scenes.</p> <p><b>Resources:</b>     \$ 25,000 for travel, lodging, meals, instructor fees, participant materials and airbags.</p> <p><b>Self-sufficiency:</b> Attendees pay their own expenses to attend this training and are bought into its use.</p> <p><b>Evaluation:</b>     Administrative – pre/post test of knowledge of participants before and after training.</p>
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<p><b>ACTIVITY:</b>     <b>EMS Communicator Training</b></p> <p><b>Problem:</b>     Not all 911 Communicators have received EMS specific training although it is a large part of their duties. Also ongoing EMS training for Communicators is not readily available, some agencies do not have the staff to allow them to travel to receive training. The NHTSA Reassessment recommends training for EMS Communicators.</p> <p><b>Objective:</b>     Develop and pilot different types (video based, on-line, etc) of EMS Communicator training to allow various avenues for receiving EMS specific training.</p> <p><b>Resources:</b>     \$20,000 for curriculum development, materials, travel expenses, meals, lodging for testing of training.</p> <p><b>Self-sufficiency:</b> Bureau of EMS will contribute to development and provide the necessary access and will take over responsibility for updates.</p> <p><b>Evaluation:</b>     Administrative – Number of participants trained and knowledge of EMS pre/post training.</p>
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<p><b>ACTIVITY:</b>     <b>NHTSA Leadership Workshop for Quality Improvement</b></p> <p><b>Problem:</b>     Not all EMS Providers have the knowledge and skills necessary to implement quality improvement activities in their organization.</p> <p><b>Objective:</b>     Provide NHTSA Leadership Workshop for Quality Improvement to 75-100 EMS Providers through out the state. Based on recommendation in NHTSA Reassessment.</p> <p><b>Resources:</b>     \$ 10,000 for training materials, postage, travel expenses, meals, lodging, instructor fees.</p> <p><b>Self-sufficiency:</b> Providers will pay their own expenses to attend this training.</p>
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**Evaluation:** Administrative- number of participants attending. Follow-up with Providers to see how many have implemented QI.

**Activity: PUBLIC HEALTH & DOT COLLABORATION TO PREVENT TRAFFIC INJURIES -- WORKSHOP**

**Problem:** Because of the similar injury prevention goals espoused by traffic safety and public health professionals and the same time very different professional universes, there are barriers which frequently inhibit collaboration on injury prevention projects. NHTSA and the CDC recognized this and developed a set of training materials, which they make available to the states to encourage collaboration.

**Objectives:** Provide training for 50-100 public health and traffic safety professionals and advocates to assist them to identify barriers, foster partnerships, and successfully collaborate on joint policy and interagency projects.

**Resources:** \$10,000 for training costs, materials, travel, meals and lodging.

**Self-sufficiency:** Increased collaboration will become institutionalized in the public health and highway safety communities.

**Evaluation:** Administrative Evaluation: Number trained, number of collaborative activities.

## **STRATEGY -- EMPOWERMENT --Community Programs**

**Activity: 03-06-03-EM COMMUNITY PROGRAMS - SAFE COMMUNITY EMS ACTIVITIES**

**Problem:** Community members must collaborate to prevent injuries effectively. Community coalitions of public safety and health professionals, engineers and planners, private citizens and advocacy groups, and business, education and faith leaders can combine resources to implement programs that will be successful in changing public knowledge, attitudes and behaviors. Communities must do or have done a local Traffic Safety Assessment. EMS Providers must be involved in the Coalition and must lead the EMS project.

**Objective:** Provide funding for 8-12 innovative EMS-related activities to decrease traffic-related deaths and injuries through Safe Communities Coalitions.

**Resources:** \$20,000 for grants to 8-12 communities. Funds may be used for coordination, training, local materials development.

**Self-sufficiency:** Communities will maintain their collaborative efforts in a continued Safe Communities concept.

**Evaluation:** Administrative evaluation of planned activities. Effectiveness evaluation of programs implemented by Coalition.

## STRATEGY -- EVALUATION – Data Improvements

### **ACTIVITY: Access to EMS Ambulance Records for Ambulance Inspector**

**Problem:** WisDOT Division of State Patrol does inspection of all ambulances statewide. This often causes problems with EMS Providers, as DHFS-BEMS & IP is the regulating body for EMS. All Provider records are housed in DHFS in the EMS database.

**Objective:** Provide access to the DSP Ambulance Inspector to DHFS ambulance records in the EMS data base.

**Resources:** \$5,000 for software and programming to allow WSP access to BEMSIP ambulance records.

**Self-sufficiency:** Bureau of EMS will contribute to development and provide the necessary access and will take responsibility for updates.

**Evaluation:** Administrative – if access to EMS database provides necessary documentation for ambulance inspector.

## 03-07 MOTORCYCLE SAFETY

**Program Goal:** To reduce the number of motorcycle riders killed and seriously injured in reportable crashes to 475 by the end of 2003, 412 by end of 2005 and 350 by end of 2007.

### FUNDS

MOTORCYCLE SAFETY 07						
Activity	Title	Fed	State	Local	Tot Prog	Loc Benefit
03-07-01	Program Mgmt	38,000	30,000	15,000	83,000	9,000
03-07-02	PI&E	52,000	2,000	7,000	61,000	25,000
03-07-03	Instructor Training	30,000	10,000	35,000	75,000	15,000
<b>402 TOTAL</b>	<b>(MC)</b>	120,000	42,000	57,000	219,000	49,000
State 461	Rider Education Program	0	454,000	200,000	654,000	0
<b>State Total</b>	<b>(461)</b>	0	454,000	200,000	654,000	0
<b>TOTAL</b>	<b>ALL FUNDS</b>	120,000	496,000	257,000	873,000	49,000

### PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

#### A. MAGNITUDE and SEVERITY of the MOTORCYCLE CRASH INJURY PROBLEM

In the United States, motor vehicle injuries are the leading cause of death for individuals age 4 to 33 years. Of the 41,821 persons killed in motor vehicle crashes nationwide in 2000, 2,862 (7%) were motorcyclists. Of the 3,189,000 persons injured nationally, 58,000 (1.8%) were motorcyclists. Per vehicle mile traveled, a motorcyclist is 18 times more likely to die in a motor vehicle crash and three times more likely to be injured in a crash than a passenger car occupant.

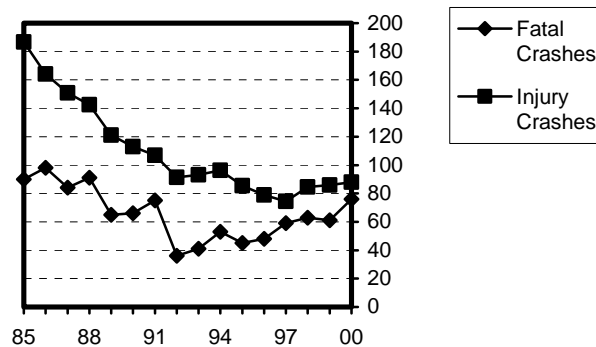
Table 07-01 -- WISCONSIN MOTORCYCLE CRASH DATA 1994-1996; 1998-2001									
MOTORCYCLE CRASH EFFECTS	1994	1995	1996	1998	1999	2000	2001	94--96 3-yr av	99--01 3-yr av
Motorcycle Crashes	2,297	2,057	1,823	1,989	2,012	2,078	2,283	2,059	2,091
Motorcyclists Killed	57	47	50	65	65	78	70	51	72
Motorcyclists Injured	2,208	1,963	1,834	1,925	1,965	2,014	2,165	2,002	2,048
Motorcyclist A-Injuries	769	615	559	577	578	614	666	648	619
Total K + A	826	662	609	631	643	692	736	699	690

Source: WisDOT Crash Database

Motorcyclists are disproportionately killed and injured when involved in crashes. In 2001, 70 motorcyclists and 2 moped riders died. Motorcycle crashes represented 1.8 percent of all traffic

crashes; motorcyclists and motorcycle passengers killed represented 9.2 percent of all motor vehicle fatalities and injured motorcyclists represented 3.7 percent of all motor vehicle injuries.

**Figure 07-02**  
**1985-2000 Fatal and Injury Motorcycle Crashes**

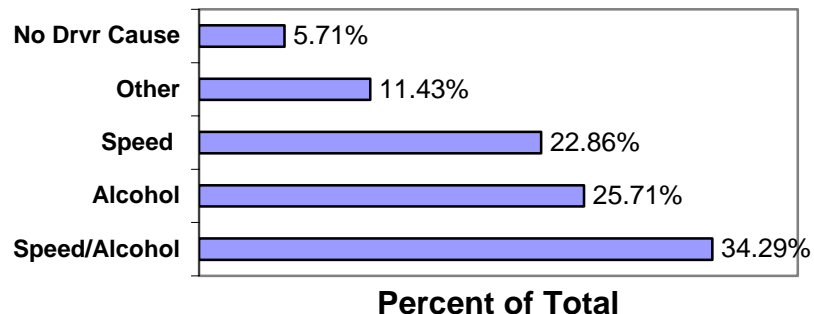


While motorcycle injury crashes have been on a fairly steady decline since 1985, the trend reversed in 1997, and the corresponding decline in fatalities began an upward trend in 1995 and the number has nearly doubled in fewer than 10 years.

#### B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

Each year, the WisDOT prepares a *Wisconsin Motorcycle Safety Facts Book*. This book provides detailed information on motorcyclists and motorcycle registrations, fatalities and injuries, and causal and location factors in motorcycle crashes. In 2000, alcohol, speed and combined alcohol-speed continued to be primary factors in single-unit motorcycle fatal crashes.

**Figure 07-03: PCCs In WI Fatal MC Crashes-2000**



Low Helmet Use: Wisconsin law mandates helmet use by riders and passengers under age 18 and riders operating with a cycle instructional permit. According to a 1994 roadside survey, helmet use averages 44 percent statewide. All riders are required to wear eye protection. Of Wisconsin's



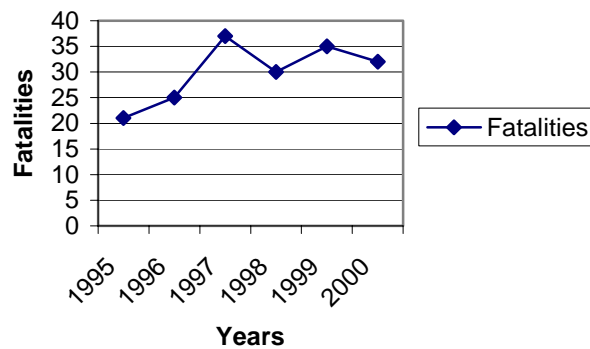
70 fatalities in 2001, only 20 percent were wearing safety helmets. Of Wisconsin's 2,154 injured riders only 31 percent were wearing safety helmets.

Linked crash and hospital data for 1994-1999 produced by the Wisconsin CODES Project, discovered 494 brain injuries for unhelmeted hospitalized riders and 54 brain injuries for helmeted-hospitalized riders.

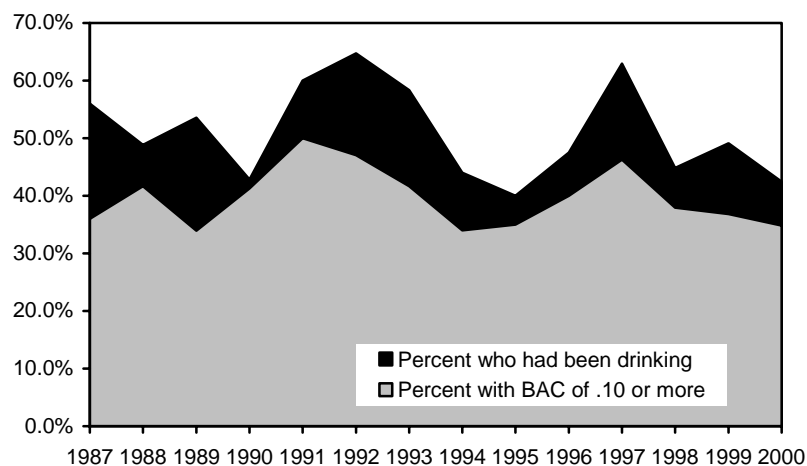
In a study of 1996 helmet use and hospitalizations, the Wisconsin CODES Project determined that persons not wearing helmets and involved in a motorcycle crash are almost five times as likely to have a traumatic brain injury hospitalization as persons wearing a helmet. In 1996, while almost nine percent of traumatic brain injury hospitalizations for unhelmeted riders resulted in death, no deaths occurred for hospitalized riders who were wearing a helmet.

Alcohol: In 2000, 309 (14 percent) of motorcycle crashes were alcohol-related and 46 percent of motorcycle fatalities involved alcohol.

**Figure 07-04: Alcohol-Related Rider Fatalities 1995-2000**



**FIGURE 07-05: Motorcycle Rider Fatalities 1987-2000 Had Been Drinking and BAC Greater Than 0.10**



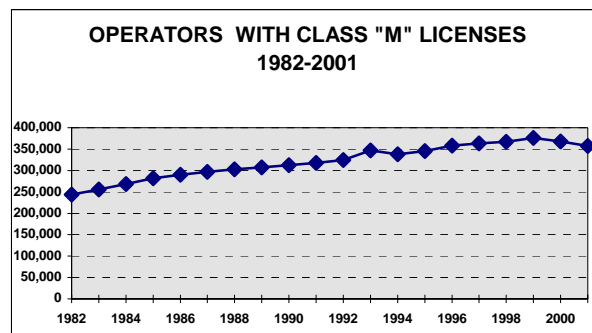
Source: Alcohol Crash Facts 2000

Of the 9,299 unhelmeted riders in crashes during 1994-1999, the Wisconsin CODES Project discovered that alcohol was involved in 1,569 of the cases and of the 3,974 helmeted riders in crashes during this period, alcohol was involved in 148 of the cases.

Rider Age: While most motor vehicle-related deaths have trended downwards in Wisconsin and nationally, motorcycle fatalities are on the increase during the last decade. Motorcyclist deaths are increasing most among riders age 40 and older; nationally, deaths in this age group increased more than 150 percent during the 1990's. According to the Insurance Institute for Highway Safety, the main reason for this upward trend is that more older people are riding motorcycles.

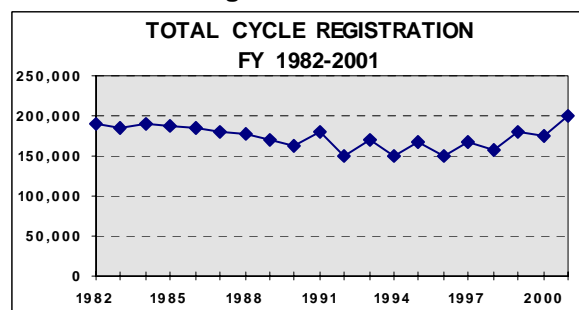
Improper Licensing: Unlicensed or improperly licensed riders were involved in an average of 28% of motorcycle fatal crashes in 1994 through 1996. In 2000, 16 percent of motorcyclists involved in fatal crashes were not licensed or were improperly licensed at the time of the crash. Nearly 20 percent of motorcyclists who died in those crashes were not licensed or were improperly licensed.

**Figure 07-06**



The preceding chart shows that licensing of motorcycle riders has increased steadily throughout the past two decades. There are 40 percent more licensed drivers in this state than there were in 1982.

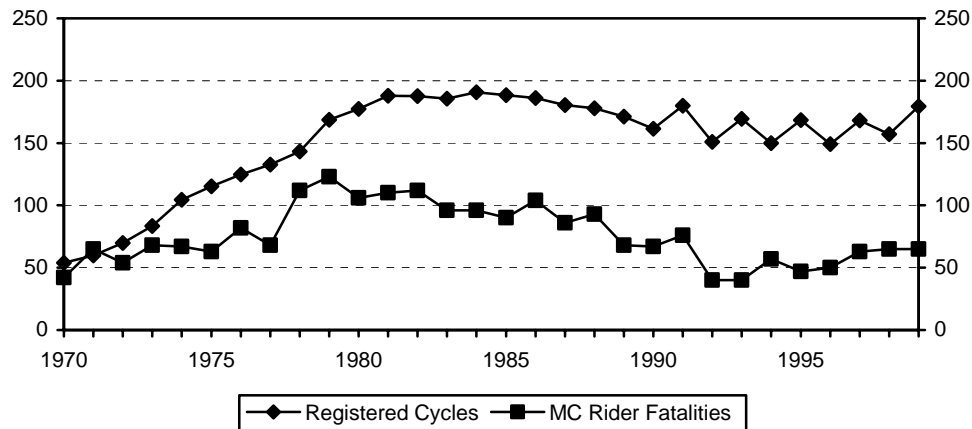
**Figure 07-07**



The preceding chart shows that registration of motorcycles decreased for much of the '90's, but has trended relatively sharply up in the past four years. In fact, there are one-third more registered cycles than there were just four years ago.

The following chart relates the number of registered motorcycles (in 100,000s) with the number of fatalities. While the number of cycles remained relatively steady for many years, the number of fatalities trended downward until the mid-nineties.

**Figure 07-08: REGISTERED CYCLES AND FATALITIES 1970-2000**



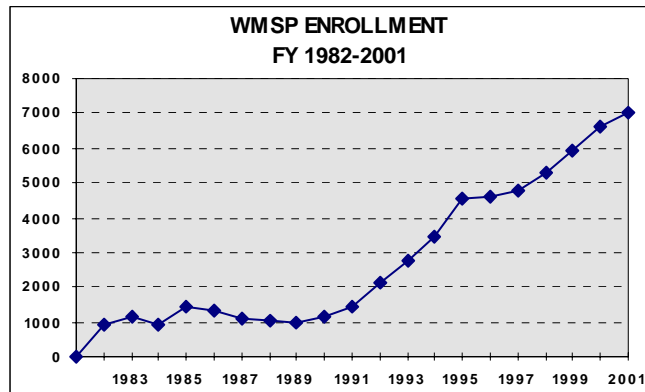
Inadequate Training and/or Experience: According to the nationally recognized "Hurt Study," of motorcycle crash risk: "...Motorcycle riders involved in accidents are essentially without training; 92% were self-taught or learned from family or friends....Motorcycle riders in these accidents showed significant collision avoidance problems....Motorcycle rider training experience reduces accident involvement and is related to reduced injuries in the event of accidents."

Collisions with Deer: A major concern of Wisconsin motorists--both motorcyclists and others--is deer, which is a factor in one of every seven motor vehicle crashes. In 2000, 80.2% of motorcycle-deer crashes resulted in a fatality or injury to the cyclist. No countermeasures exist except knowledge of deer behavior and increased watchfulness of the rider in high-risk areas and at times when deer are most likely to be present.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

Education – Training: Wisconsin has elected to pursue rider education as its primary strategy to decrease motorcycle crash-related injuries and deaths and to address the high-risk behaviors and groups identified above. Many collision-avoidance skills are taught and experienced on bikes. Wisconsin's state-funded Motorcycle Rider Education Program (MREP) Basic Course graduates have increased from 450 in 1981 to 5,949 in 2000, and 7,041 were enrolled in the summer 2001 season. Experienced Rider Course graduates increased from 40 in 1982 to 584 in 2000, and 343 were enrolled in 2001. Federal funds are used to upgrade the training skills of the MREP instructors and to support program administration.

**Figure 07-09 Wisconsin Motorcycle Safety Program (WMSP)  
Rider Education Class Enrollment**



Public Information: Federal funds support the development, duplication and distribution of public information and education materials that support training and that address the primary safety issues for motorcyclists. 2001 Motorcycle Safety Foundation award-winning materials address training, licensing, protective gear, alcohol-impaired riding, work zone hazards and moped safety.

Evaluation: In 2000, Wisconsin underwent a NHTSA Motorcycle Program Assessment. The Technical Assistance Team was impressed with the quality of Wisconsin's program:

**“...there is a well-respected and recognized leadership system in place to address current and emerging challenges concerning motorcycle safety in the state....Wisconsin’s program is very comprehensive and has involved a broad spectrum of people, organizations, and government entities in program management, licensing, rider education, and public information and education.**

The state Motorcycle Safety Advisory Committee (MOSAC) has met twice to discuss implementing the Assessment Team’s major recommendations as well as implementing the recommendations of the National Agenda for Motorcycle Safety. No formal strategic planning process is underway, but MOSAC is making recommendations about developing program goals and objectives, the on-going evaluation process and annual formal program review. Public information materials encouraging use of protective gear were developed and are now widely available.

## PROGRAM OBJECTIVES

**Objective 1:** To decrease the three-year average number of motorcycle crashes to 1,586, and three-year average number of fatalities to 56 for the years 2001-2003

Performance Measure: Annual number of motorcycle crashes and motorcyclists killed as reported on police crash report form, averaged over three years.

Baseline: In CY 1994, 57 motorcycle riders died in 2,297 crashes. Three-year average crashes for CY 1994 - 1996 was 2,059. Three-year average fatalities for 1994 - 1996 was 51.

Status: In CY 2001, 70 motorcycle riders died in 2,283 crashes. The 1999-2001 three-year average is 72 deaths in 2,124 crashes.

**Objective 2:** To decrease the number of motorcycle crashes, fatalities and injuries in which the rider "had been drinking" to 250 by the end of CY 2003

Performance Measure: Number of motorcycle crashes in which the reporting officer indicates on the crash report that the rider had "had been drinking," the number of fatalities and injuries in such crashes.

Baseline: In CY 1994, 354 alcohol-related crashes, 30 fatalities and 420 injuries were reported. The CY 1994-1996 three-year average was 304 crashes, 25 fatalities, and 350 injuries

Status: In CY 2001, 309 alcohol-related crashes, 32 fatalities and 335 injuries occurred.

**Objective 3:** To decrease the percent of improperly licensed motorcycle riders in fatal crashes to 15% of all Wisconsin riders by the end of CY 2003.

Performance Measure: Number of riders in fatal crashes identified as improperly licensed.

Baseline: In CY 1994, 44% of riders were improperly licensed. 1994-1996 three-year average was 28%

Status: In CY 2001, 16.25% of riders in fatal crashes were improperly licensed.

## TABLE of STRATEGIES & ACTIVITIES

### STRATEGY -- ADMINISTRATION

**Activity:** 03-07-01-MC ADMINISTRATIVE SUPPORT.

**Problem:** State-funded Motorcycle Rider Education Program requires full-time clerical assistance to maximize the state resources made available in the 1997-99 Biennial Budget.

**Objective:**

1. To assist the Program Manager in the delivery of an enlarged rider education program.
2. To provide clerical support for BOTS: Produce forms, spreadsheets, correspondence, documents, contracts, etc., as required.
3. Handle 800 number and other MC program phone calls.

**Resources:** \$38,000 for 1.0 FTE wage, fringe, DP, training, M&S.

**Self-sufficiency:** Need for this level of support will be reevaluated, as program enlarges. State support in 2001 at \$56,000 for program manager, and \$386,000 for program delivery.

**Evaluation:** Administrative evaluation of level of activity and output.

**Activity:** Wisconsin MOTORCYCLE RIDER EDUCATION PROGRAM  
MANAGEMENT *State Approp. 461*

**Problem:** State-funded Motorcycle Rider Education Program requires full-time administrator specified in State Statute and administrative code.

**Objective:** To coordinate and manage the Motorcycle Rider Education Program and all other state-level motorcycle safety activities.

**Resources:** \$80,000 for 1.0 FTE wage, fringe, DP, training, M&S.

**Self-sufficiency:** This is a statutorily mandated and funded position.

**Evaluation:** Administrative evaluation of level of activity and output.

### STRATEGY -- EDUCATION – Public Information & Education

**Activity:** 03-07-02-MC MOTORCYCLE SAFETY PUBLIC INFORMATION

**Problem:** Five program messages must be communicated to the appropriate target audiences: "Get Trained," "Get Licensed," "Gear Up," "Ride Sober," and "Share the Road." Existing program materials were developed in the past three years.

**Objective:** Market research, design campaign messages and materials to disseminate all five messages, ascertain baseline KAB for each message and develop plan for analysis of effectiveness. The purpose of which is to:

1. Increase interest and ,thus, training class size by 10% by 2004.
2. Reduce impaired riding and alcohol-related crashes by 10% by 2004.

3. Reduce annual motorcyclist deaths and injuries by 15% by 2004.
4. Reach 60% of the targeted audiences with these materials.

**Resources:** \$ 52,000 for duplication and distribution of materials.

**Self-sufficiency:** All materials will be available for free duplication.

**Evaluation:** BOTS PI&E Evaluation ascertain baseline KAB for each message and develop plan for analysis of effectiveness in reaching target audiences and in affecting KAB.

## STRATEGY -- EDUCATION -- Training

### Activity: 03-07-03-MC MOTORCYCLE SAFETY INSTRUCTOR TRAINING

**Problem:** State-funded Motorcycle Rider Education Program requires instructors who meet national and state training standards to provide Wisconsin riders with the most current information and training methods and to maximize the value of the training. Regional and/or state workshops can keep instructors and chief instructors current on national curriculum issues.

**Objective:**

1. To involve up to 85% of Wisconsin Motorcycle Safety Instructors in annual Instructor Refresher Workshops to update instructors in the new MSF National Curriculum being implemented statewide in 2003. Sponsor up to 3 regional meetings, or one state conference for Instructors.
2. Provide scholarships for up to 4 Chief Instructors to attend National SMSA/MSF Conference in 2003.

**Resources:** \$30,000 for wage, travel, meals, incentives.

**Self-sufficiency:** Instructors will see benefit and attend future conferences at own expense.

**Evaluation:** Administrative evaluation. Compare quality of instruction over several years using on-site visits.

### Activity: WISCONSIN MOTORCYCLE RIDER EDUCATION PROGRAM – *State Approp. 461*

**Problem:** State-funded Motorcycle Rider Education Program

**Objective:** To enroll 7,000 riders in the Basic Rider Course (MRC:RSS) and 700 riders in the Experienced Rider Course (ERC) during the 2003 training season, given adequate funding.

**Resources:** \$376,000 for grants to sites delivering training, M&S.

**Self-sufficiency:** This is a statutorily-mandated and funded program.

**Evaluation:** Administrative evaluation. Number of students served, quality of instruction, survey KAB of instructors and students, trends in crashes, citations, deaths and injuries.

**03-08**  
**ROADWAY SAFETY**

**Program Goal:** To educate county and municipal safety organizations about traffic calming techniques for highway safety and to support multidisciplinary Safe Community planning or engineering projects.

**FUNDS**

<b>ROADWAY SAFETY 08</b>						
<b>Activity</b>	<b>Title</b>	<b>Fed</b>	<b>State</b>	<b>Local</b>	<b>Tot Prog</b>	<b>Loc Benefit</b>
03-08-01	Traffic Calming Outreach	12,500	12,500	29,000	54,000	6,250
03-08-02	Safe Community Studies	15,000	2,000	7,000	24,000	15,000
<b>402 TOTAL</b>	<b>(RS)</b>	<b>27,500</b>	<b>14,500</b>	<b>36,000</b>	<b>78,000</b>	<b>21,250</b>
03-08-03	HES Safety Improvements	10,000	0	0	10,000	10,000
<b>164 TOTAL</b>	<b>(164HE)</b>	<b>10,000</b>	<b>0</b>	<b>0</b>	<b>10,000</b>	<b>10,000</b>
<b>TOTAL</b>	<b>ALL FUNDS</b>	<b>37,500</b>	<b>14,500</b>	<b>36,000</b>	<b>88,000</b>	<b>31,250</b>

**PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION**

Safety is a top priority of the US Department of Transportation, which has established a 20-percent reduction goal in highway fatalities over 10 years and a 50-percent reduction in heavy truck-related fatalities.

**A. MAGNITUDE and SEVERITY of ROADWAY-FACTOR-CAUSED CRASHES**

The Federal Highway Administration (FHWA) is focusing on types of crashes that result in large numbers of fatalities: these are speed-related crashes, pedestrian crashes, run-off-the-road crashes and large truck crashes.

Traditionally, planning and engineering have not been included in the development of collaborative highway safety projects at the local level. Their work has not been well understood by other safety and health professionals and they in turn, do not always understand what the "soft" side of safety does accomplish. Thus they have not been integrated into multi-strategy community development efforts such as Safe Communities, where their expertise can best be deployed.

**B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:**

Roadway Location: While more crashes occur on urban streets and roads, they tend to have less severe consequences than rural crashes. This is due to many factors, including speed, roadway design and availability of emergency response.



<b>Table 08-01 -- CRASH BY ROADWAY TYPE 1994-2001</b>								<b>94-96</b>	<b>98-00</b>
<b>1994-2000</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>3-yr av</b>	<b>3-yr av</b>
Urban city street crashes	53,521	54,173	49,368	44,686	45,909	50,042	45,882	52,354	<b>46,879</b>
Rural city street crashes	5,179	5,011	4,342	4,365	4,685	4,849	4,343	4,844	<b>4,633</b>
Town road crashes	13,736	14,712	13,063	11,478	12,323	13,279	11,815	13,837	<b>12,360</b>
County highway crashes	17,180	17,828	16,024	14,736	15,533	15,879	14,719	17,011	<b>15,383</b>
Urban state hwy crashes	21,059	20,306	18,110	16,851	16,713	17,866	15,671	19,825	<b>17,143</b>
Rural state hwy crashes	29,544	29,370	27,829	25,840	27,201	27,678	24,911	28,914	<b>26,906</b>
Urban interstate crashes	3,996	3,377	3,468	3,587	4,353	4,849	4,067	3,614	<b>4,263</b>
Rural interstate crashes	4,110	4,087	4,493	4,288	4,233	5,060	3,995	4,230	<b>4,527</b>

Source: WisDOT Crash Database

<b>Table 08-02: 2001 Crashes by Highway Class and Severity</b>				
Hwy Class	Fatal	Injury	PDO	Total
Local Street/Road	196	20,142	41,702	62,040
County Highway	167	4,129	10,423	14,719
State Highway	286	12,709	27,587	40,582
Interstate System	35	2,379	8,062	10,476
Total	684	39,359	85,360	125,403

Source: 2001 DMV Crash Database

Intersection Crashes: In Wisconsin in 2001, non-intersection crashes resulted in 566 people being killed and 28,570 people injured in 507 fatal crashes and 20,362 injury crashes. In intersection crashes, 198 people were killed, and 29,709 people were injured in 177 fatal crashes and 20,362 injury crashes. In rural crashes, 626 people were killed and 24,685 were injured in 555 fatal crashes and 16,509 injury crashes. In urban crashes, 138 people were killed and 33,594 people were injured in 129 fatal crashes and 22,849 injury crashes.

Over the past seven years, Wisconsin has experienced the following intersection crash history. While the number of reported crashes at intersections and deaths in these crashes has increased in the past three years, we have experienced a decline in intersection injury crashes. These data do not separate urban from rural intersections.

<b>Table 08-03 -- INTERSECTION CRASHES 1994- 2001</b>									
<b>Year</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>94-96 Avg</b>	<b>99-01 Avg</b>
Fatal Crashes	180	181	190	183	211	199	<b>177</b>	184	<b>198</b>
Injury Crashes	21,275	21,191	21,161	20,456	19,815	20,668	<b>20,362</b>	21,209	<b>20,313</b>
Property Damage	34,707	35,110	31,541	28,287	29,375	31,917	<b>28,388</b>	33,786	<b>29,860</b>
Total Crashes	56,162	56,482	52,892	48,926	49,201	52,784	<b>48,927</b>	55,179	<b>50,304</b>

Source Wisconsin Crash Database

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

The FHWA recommends the following state-level actions to improve safety: (1) establish a safety management system and Safe Communities programs, and perform Road Safety Audits, (2) develop a safety performance plan, (3) use 402 and STP funds for upgraded crash data systems to track cause and effect, (4) develop a comprehensive rest area plan, (4) focus on construction work zones especially with regard to large trucks, (5) deliver culturally diverse safety messages, (6) make effective use of technology, (7) use safety incentive grants, and (8) encourage individual safety behaviors

Strategy - Develop Safe Community Coalitions with Engineering/Planning Components: Safe Communities-Wisconsin is a strategic planning approach to community injury prevention and safety promotion. Wisconsin encourages and supports community-based injury control efforts. A Safe Community is one in which there is broad-based, multi-disciplinary leadership for injury control. Engineers, Planners, Law Enforcement, Public Health Professionals, EMT's, Teachers, Doctors, Nurses, Business owners, Volunteers, Citizens, Parents and other work cooperatively to plan and implement community injury prevention efforts. Collaboration and communication are key to successful Safe Community efforts.

Traffic Calming is relatively new in Wisconsin, and requires collaborative efforts of engineering, planning, and political leaders. Local planners and engineers trained in safety strategies for traffic calming, intersection design, school zone and work zone safety can provide important technical information to their community coalition and can encourage the community to undertake small engineering studies of local crash problem locations. The process of making these changes in their neighborhood transportation networks can be led by the citizens themselves, as well. These studies can then lead to community action to implement countermeasures.

Strategy - Training Engineers and Planners: The most effective strategy for decreasing intersection crashes is to design intersections to maximize visibility and minimize conflicts. Traffic calming techniques have been shown to slow traffic in neighborhoods as well as to reduce intersection crashes. In addition, traffic calming encourages healthy walking and bicycling behavior by making streets welcoming to non-motorized users.

The use of many "traffic calming" techniques and the design of pedestrian and bicycle facilities concurrently with the facilities for motor vehicles have been proven to have safety benefits as well as decreasing congestion. Wisconsin's engineers are now required to study pedestrian and bicycle facility design. This unit will be developed during 2002-2003.

#### D. CRITERIA FOR PROJECT SELECTION

Safe Communities Engineering/Planning Studies: (1) A community with a population in excess of 10,000, (2) with an existing multidisciplinary Safe Community coalition, and with (3) demonstrated multi-year disproportionate crash problems in an identified location; or a smaller community with demonstrated problems of unusual scope and demonstration of disproportionate buy-in for Highway Safety projects.

## PROGRAM OBJECTIVES

**Objective 1:** To develop a process that can be used by local government and WisDOT to explain and promote roundabouts and other traffic calming techniques in new construction and improvement projects during FFY 2003.

Performance Measure: Number of public works professionals trained per year.

Baseline: Over the past two years, traffic calming workshops at Marquette University and in Brown County reached 187 engineers and planners.

Status: In FY2000, approximately 150 public works professionals were trained.

**Objective 2:** To support up to five planning or engineering projects selected, endorsed and administered by Safe Community coalitions during FFY2003.

Performance Measure: Community Coalitions which meet BOTS criteria for Safe Community status, showing multidisciplinary project selection process, having selected, endorsed, planned and administered a safety-related planning or engineering project. .

Baseline: No such projects have yet taken place.

Status: Traffic Calming projects have been undertaken by communities that do not have a formal Safe Community Coalition.

## TABLE of STRATEGIES & ACTIVITIES

### STRATEGY -- EDUCATION – Training

#### Activity: 03-08-01-RS TRAINING -- TRAFFIC CALMING OUTREACH

**Problem:** Many local communities are looking at use of traffic calming techniques such as roundabouts or traffic circles to help correct intersection crash problems. Few planners, engineers or designers have expertise in explaining and marketing roundabouts and other traffic calming techniques and need training in selling communities on their value.

**Objective:** 1. To develop a roundabout oversight group of WisDOT central office and district office and local traffic engineers to promote traffic calming techniques throughout the state during 2003.  
2. To develop a promotional/educational video and related training materials to encourage communities to use traffic calming techniques to address safety problems during FFY 2003.

**Resources:** \$12,500 for fees, travel, lodging and meals.

**Self-sufficiency:** BOTS and host agency will require participating in training to pay their own salary, travel costs.

**Evaluation:** BOTS administrative evaluation of use of training for participants.

### STRATEGY -- EMPOWERMENT – Community Programs

#### Activity: 03-08-02-RS SAFE COMMUNITY PLANNING/ENGINEERING PROJECTS

**Problem:** Communities often recognize roadway safety improvements that can be implemented locally. These efforts should include or be associated with local traffic calming efforts. Communities receiving these Safe Community funds will be strongly encouraged to attend traffic calming training and will be required to share their experience with other similarly situated communities. Safety in school zones is a perceived problem by parents and school officials. Schools and school districts need to review the safety of school zones thoroughly before investing time and energy in proposing expensive solutions to imagined problems.

**Objectives:** At least three communities will promote safety for at-risk populations or at-risk locations such as older pedestrians or children in school zones by implementing either a study of travel zones, a safe route to school effort or some other study, or plan a traffic calming or other roadway safety improvement project.

**Activities:** Communities may undertake school zone safety studies, safe route to school projects or some other approach to traffic safety designed by a collaborating group including school staff, advocates for the elderly, planners and other interested community members as appropriate for the community and project.

**Resources:** \$15,000. \$3,000 x 5 communities for evaluation, investigation, and planning and may be used for low-cost (i.e. less than \$3,000) interventions, with a 50% hard match required.

**Self-sufficiency:** The required 50/50 soft match will promote community involvement in the effort and should enhance self-sufficiency. Communities will be eligible for only one school zone safety project during the ten years (2002-2012).

## STRATEGY -- ENGINEERING – Safety Improvements

**Activity:** 03-08-04-164HE    **ENGINEERING SAFETY IMPROVEMENTS – 164 funded**

**Problem:** In 2001 Wisconsin experienced 125,300 crashes in which 765 fatalities and more than 58,200 injuries occurred and 85,301 in which property damage alone occurred. Many of the crashes were concentrated at certain intersections, hills, curves and other features. The HES program addresses high-crash locations on all state and local highways in Wisconsin. Hazard Elimination projects are intended to employ relatively inexpensive engineering countermeasures to correct identified high-crash locations.

**Objective(s):** To increase the number of locations with identified safety problems which can be addressed through the HES program.

**Resources:** \$1,000,000 for highway engineering and low-cost improvements. Ninety percent federal funds will be used with a 10% state/local match required.

**Self-sufficiency:** The HES program is a continuing program funded through FHWA.

**Evaluation:** WisDOT submits an annual report to the FHWA, which serves as the basic evaluation tool for the Hazard Elimination Program. The Central Office Bureau of Highway Operations - Safety Section will perform the necessary before/after studies and prepare the report, including the evaluation of local projects. Local units of government may also be requested to provide before/after crash data.

### 03-09

## PEDESTRIAN, BICYCLE & PUPIL TRANSPORTATION SAFETY

**Program Goal:** To decrease pedestrian crashes to 1,550 and combined fatalities and serious (A) injuries to 338 by 2003; and decrease to 1,400 crashes and 300 K-A injuries by 2005 and to 1,200 crashes and 264 K-A injuries by 2007.

**Program Goal:** To decrease bicyclist crashes to 1,000 and combined fatalities and serious (A) injuries to 127 by 2003; to 800 crashes and 100 K-A injuries by 2005 and to 600 crashes and 83 K-A injuries by 2007.

The Center for Disease Control's Healthy People 2010 national public health goals include reducing pedestrian deaths on public roads to 1.0 pedestrian death per 100,000 population and reducing nonfatal pedestrian injuries on public roads to 19 per 100,000 population, and to increase the number of states with law requiring bicycle helmets for bicycle riders.

Federal Highway Administration (FHWA) goals for the year 2008 include doubling bicycle and walking trips from 7.9 to 15.8 and to decrease bicyclists or pedestrians killed or injured in motor vehicle crashes by 10 percent. (National Cycling and Walking Study-1994).

### FUNDS

PEDESTRIAN, BICYCLE & SCHOOL BUS SAFETY 09						
Activity	Title	Fed	State	Local	Tot Prog	Loc Benefit
03-09-01	PI&E	117,000	42,000	50,000	209,000	62,500
03-09-02	Training	20,000	0	38,000	58,000	10,000
03-09-03	Community Programs	235,000	306,000	235,000	776,000	175,000
03-09-04	Community Surveys	20,000	5,000	5,000	30,000	5,000
<b>402 TOTAL</b>	<b>(PS)</b>	<b>392,000</b>	<b>353,000</b>	<b>328,000</b>	<b>1,073,000</b>	<b>252,500</b>
State 461	Program Management	0	87,000	0	87,000	0
<b>State Total</b>	<b>(461)</b>	<b>0</b>	<b>87,000</b>	<b>0</b>	<b>87,000</b>	<b>0</b>
<b>TOTAL</b>	<b>ALL FUNDS</b>	<b>392,000</b>	<b>440,000</b>	<b>328,000</b>	<b>1,106,000</b>	<b>252,500</b>

### PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

Although pedestrian and bicycle crashes have decreased dramatically over the past ten years, most involve some level of injury. The difference between a pedestrian or bicyclist death and an injury is in seconds in speed of motor vehicle, and in the skill, knowledge and attentiveness of drivers, bicycle riders and pedestrians.

Although pedestrians and bicycle riders have low profiles, are relatively slow-speed and relatively unprotected when compared with motor vehicles and their occupants, and although both tend to be injured even in slow-speed crashes with motor vehicles, they pose different problems for the safety professions. They have different risk factors and at-risk groups, and respond to different

strategies and motivators.

However, for both groups, engineering a friendlier environment for them, and motivating the motoring public to recognize them as valid forms of transportation with legal rights to travel on the pavement, are effective safety strategies. The Federal Highway Administration's goals above highlight the added benefit that, with more pedestrian and bicycle-friendly communities, more exercise will occur and the general well-being and health of the public will improve.

#### **A. MAGNITUDE and SEVERITY of the PEDESTRIAN CRASH PROBLEM**

<b>Table 09-01 -- PEDESTRIAN CRASHES 1994-1996; 1998-2001</b>									
PEDESTRIANS	1994	1995	1996	1998	1999	2000	2001	94--96 3-yr av	99--01 3-yr av
Pedestrian Crashes	2,059	1,939	1,843	1,778	1,675	1,658	1,547	1,947	1,627
Pedestrians Killed	50	64	54	64	55	51	42	56	49
Pedestrians Injured	2,044	1,897	1,815	1,764	1,653	1,648	1,545	1,919	1,615
Pedestrian A-Injuries	526	474	422	386	339	353	349	474	347
Total K&A	576	538	496	450	394	403	391	530	396

Source: WisDOT Crash Database

Pedestrian crashes have decreased by 25 percent and pedestrian deaths and serious injuries have decreased by 32 percent since 1994. It is unknown to what extent this reflects the great decrease in walking that has occurred over the past quarter century or the improved trauma care in cities where the majority of pedestrian crashes occur.

The Wisconsin CODES Project linked 1999 hospital records to crashes with 1,831 vehicles having 2,123 occupants involved in 1,369 crashes involving pedestrians). Of these 14 were seriously injured, 12 were EMS transported and 2 were hospitalized for a total of 8 days and \$27,773 in inpatient charges. No pedestrian deaths were linked. In 1998, hospital e-code information for pedestrian injuries showed 446 persons injured, with an average hospital stay of 8.7 days and total in-patient charges of \$11,172,447.

#### **B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:**

Location: Location can be urban or rural, can vary by speed limit and the density and type of traffic, and especially by the roadway design. Age and location are correlating factors. Pedestrian-friendly intersections, traffic calming features, and the availability of paved shoulders and sidewalks make walking safe and more enjoyable for all ages. Some examples are:

--Neighborhoods: Child pedestrian crashes generally occur on neighborhood streets and often at mid-block. Children are often struck by a vehicle belonging to their own or another parent or teacher's car at or near school or home.

--Dense Urban Traffic: Milwaukee accounts for about half of all pedestrian and school bus crashes each year. Southeastern Wisconsin has about 45% of the state's population and the highest

population densities. Most of the decrease in pedestrian crashes and school bus crashes are accounted for in reductions in the Milwaukee area.

--Intersections: For older youth and adults, being a pedestrian is often a form of exercise as well as transportation and fun. Crashes are often on larger city streets or country roads and are caused by a left turning motorist who does not look for/see the smaller road user or does not judge the pedestrian's movements and speed accurately. Sometimes crashes are caused by a right turning motorist who doesn't look to the right for pedestrians before turning at a right-turn-on-red intersection. Looking only for cars and trucks at intersections, not smaller vehicles and pedestrians or animals, is a common motorist mistake.

--High-speed Roadways: A few of the fatalities and serious injuries each year happen to motorists who become pedestrians in areas pedestrians are not expected. Examples are: running out of gas, changing a tire or inspecting/repairing a vehicle problem, or leaving a car with an abusive driver or passenger. The only defense is making oneself as visible as possible with flares, flashlight, another vehicle's lights, vehicle hazard lights, strap-on lighting or retro-reflective outer clothing, and walking facing traffic or even off the roadway altogether when traffic speed is high. Other high-risk locations are on RR ROW, in highway work zones, in stalled cars on roadways and on college campuses.

Age: Historically, children, elderly and alcohol-impaired pedestrians constituted about 30% each of pedestrian fatalities. In most recent years, child and elderly pedestrian fatalities are decreasing. Anecdotal information indicates that this may be due to decreased walking because of fear of traffic by these two groups rather than any real improvements in safety.

<b>Table 09-02: WI Pedestrian Deaths By Age - 2001</b>		
Age	Deaths	Percent
Unknown		
0-24	9	21.5%
0-14	5	
15-19	2	
20-24	2	
25-44	24	57%
55 and older	9	21.5%
55-64	4	
65 and older	5	
Totals	42	100%

Source: 2001 Crash Database

Children are involved in crashes caused most often by dart-out into traffic, excessive vehicular speeds for neighborhoods and school zones, and inattentiveness of motorists. The youngest children may not yet know traffic rules, or quickly forget them when excited about something else in their world. They have less developed sensory abilities; for instance, they hear a horn but cannot tell the direction the sound comes from, and they have only 1/3 the peripheral vision adults have, so do not see traffic as soon as adults would.



A growing number of non-impaired adults who are working, standing or walking along higher speed roadways are killed each year, even though non-impaired adults in middle years (ages 15-55) appear either to move faster and avoid contact with motor vehicle or have more resistance and survivability for injuries incurred when struck.

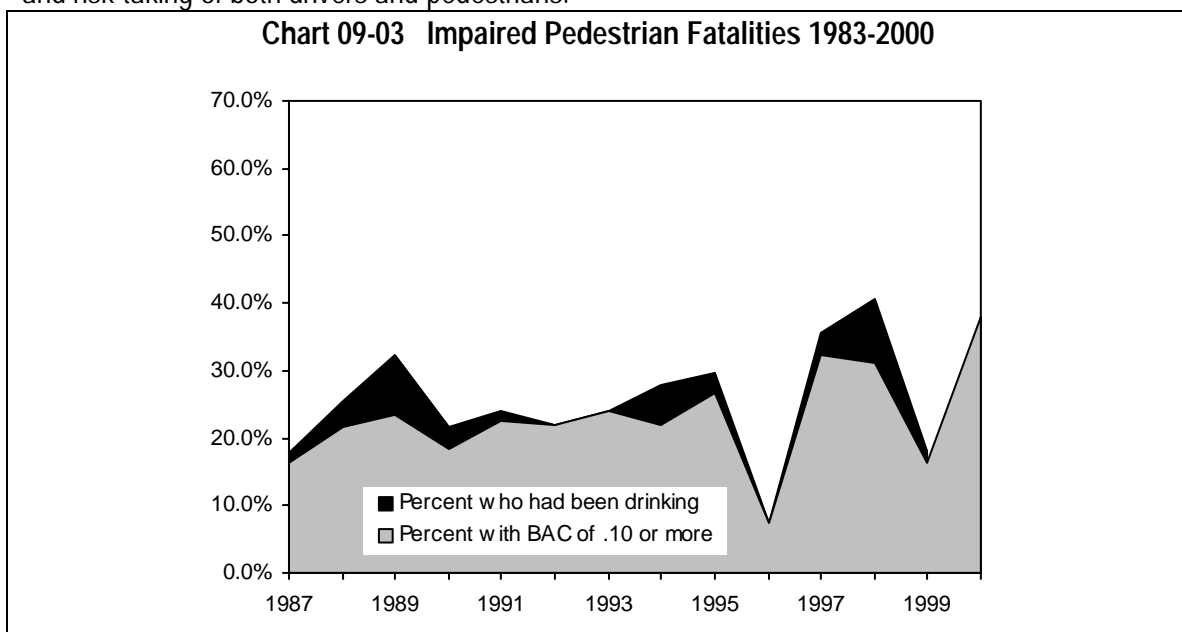
Gender: Nationally, more than two-thirds of pedestrian fatalities are males, and males sustain more than twice the number of injuries in pedestrian crashes.

Time of Day: Age and time of day are correlating factors. The large majority of childhood crashes happen in the 3-4 hours right after school in daylight. 3 of the 5 fatalities of those 65 or older occurring during daylight. On the other hand, almost all, 28 of the 33 fatalities of adults 15 to 65 years old occurred at night. Dark clothing, especially red and black, make night-time pedestrians almost invisible to motorists.

Impaired judgment: Adult pedestrians often cross against lights, cross outside crossing zones at intersections, or cross at the most convenient place for them. These can be dangerous situations but if the teen or adult accurately judges traffic and other environmental conditions a crash rarely occurs.

Introduce alcohol or drug use, however, and the most athletic pedestrian may have trouble coordinating the walk along or crossing of a street/road. The impaired judgment and reflexes that make a person a dangerous motorist also make him or her a hazard to himself and others when on foot. Over the past several years, between 32 and 50 percent of Wisconsin's pedestrian fatalities would have been too drunk to have driven a motor vehicle legally. In 2001, 45 percent of all pedestrian fatalities had an alcohol concentration of 0.10 % AC or higher.

Almost all of adult pedestrian fatalities occurred at night. National studies use night-time as a surrogate for drinking, which in the case of pedestrians, is a combination of the drinking behaviors and risk-taking of both drivers and pedestrians.



Vehicle type: Few pedestrian crashes result in damage only to clothing or other property; almost all result in some injury to the pedestrian. Speed and the size and construction of vehicle hitting pedestrian affect degree of injury. Bumper height, for example, can mean the difference between injury and death.

Driver Aggression: Driver aggression toward the relatively slower-moving pedestrian is getting worse. Crossing guards are sworn at, given hand signals, and being intentionally driven at, and their directions to traffic disregarded. Crossing guards, like school bus drivers, can take a vehicle license and report it to local law enforcement to initiate a contact and possible citation. However, most are in shock when they or the children are in jeopardy and cannot record this information. Several crossing guards in the Fox Valley/Green Bay area have been struck by motor vehicles in recent years. Violations of pedestrian safety on sidewalks, in driveways and in both marked and unmarked crosswalks should receive attention whether violator is bicyclist or motorist.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

Everyone is a pedestrian at some time, and thus we think of walking as a simple activity. We fail to recognize the complexity of many of the issues facing planners who want to integrate safe pedestrian travel into their transportation and land use plans. Also, pedestrian travel is not as engaging in terms of political motivation as bicycling. The federal government developed the Pedestrian Road Show as a community-focused interactive means of providing a fresh view of the problems and possible solutions for such planning.

Research/data compilation over the last 30 years demonstrates the effectiveness of the following strategies to prevent serious injuries and deaths involving a pedestrian:

- (1) to prevent the crashes.
- (2) to intervene in the crash so that injury is minimized
- (3) to provide quality emergency response and follow-up medical care when there is a crash.

Community Coordinated Activity: Strategies that a community can take to prevent crashes, intervene before the crash to prevent/reduce injury, or intervene once a crash occurs are offered in the following activities -- engineering, education, enforcement, emergency medical services, and encouragement. Wisconsin communities are encouraged to use the best resources available and, within their local resources, to work on all strategies to improve the safety of all pedestrians whether they are young and haven't learned traffic dangers and rules, older and need more time for crossing, using alcohol or other drugs and unable to make accurate judgment about traffic movement, or any pedestrian walking night or day for enjoyment or transportation.

Community leaders concerned about safety for pedestrians should remain open to creative innovative approaches. Developing new strategies or testing other communities strategies in your own community can help us all find better ways to make walking both fun and safe. BOTS offers communities the services of trained facilitators for the FHWA "Pedestrian Road Show" program,

that encourages communities to study their pedestrian environment and look at local strategies to deal with the problems and challenges they have identified.

Schools should discourage parent drop-offs and should designate student drop-off points and direct and inform all users of the school area why this should be observed - to protect all children by reducing the most dangerous maneuvers of turning, backing, and walking between vehicles especially in multi-directional traffic.

Strategy – Education: Public information and education must be a component of each pedestrian safety strategy. Up-to-date, targeted, free or free-loan educational materials must be made available to communities, interest groups and advocacy groups who do not have the resources to research or produce such materials.

Pedestrian safety is an extremely complex safety issue. Multiple types of education or training are necessary because so many target groups need to learn about safe pedestrian environments and behaviors; these groups include trainers, the various at-risk groups, planners, designers, engineers, community leaders, school systems, and law enforcement officers. Adult peer groups such as AARP and 55-Alive can incorporate more pedestrian-motorist material to explain the changes in abilities and perceptions that occur with age and ways to compensate while maintaining mobility as long as possible. Even for child pedestrian safety, multiple groups need to be made aware of their contribution to the danger to child pedestrians and what they can do to address it in their multiple roles of citizen, parent, safety professional, safety advocate or educator. Public information is an essential part of pedestrian law enforcement; Wisconsin motorists behave as if they are totally unaware of pedestrian legal rights.

Strategy – Enforcement. Law enforcement for pedestrian safety includes enforcing motorist speeds, aggression toward pedestrians, red-light violations, failure to yield in crosswalks and for blind pedestrians at all locations. It also includes limited enforcement of pedestrian behaviors coupled with on-the-spot education of the pedestrians about crossing locations and strategies. These enforcement strategies can reduce up to 90 percent of crashes.

Strategy - Engineering and Conspicuity Enhancement: Crash prevention through changing the environment can take the form of re-engineering the roadway to adapt to the needs of pedestrians and to minimize conflicts with motor vehicles. Training of engineers and planners is included in the Roadway Safety portion of this plan. Changing the environment can also take the form of increasing the visibility of walkers, joggers and early morning or late evening delivery people. A simple intervention is to educate them about the value of retro-reflective material on their outerwear, especially on their shoes.

Strategy-Evaluation: BOTS will develop means of performing comparisons of communities who did one or more activity with those taking no pedestrian-specific or traffic calming action.

#### D. CRITERIA FOR PROJECT SELECTION:

Priority for pedestrian safety funding will be give to communities with: (1) populations in excess of 10,000, (2) unusual exposure factors for pedestrian crashes, (2) at least three years of data demonstrating a pedestrian crash problem, (3) a high-level of community buy-in demonstrated by Project Match, (4) a plan for coordinated activity employing multiple actors, strategies, and/or fund sources, (5) an evaluation plan, (6) demonstrating good self-sufficiency within 1-3 years, and (6) a history of using Highway Safety funds effectively.

Communities with functioning Safe Community Coalitions that have used data to select pedestrian safety as a priority area for community activity will be given preference.

Smaller communities may be eligible for start-up grants if they demonstrate problems of unusual scope or unusual community buy-in, plus unusual effectiveness in past Highway Safety Projects.

Communities may have funding for same activities for no more than 3 years, including both planning and implementation phases. Each year's activity will be evaluated, and communities that have not performed the prior year's contract will not be eligible for additional years of funding.

## BICYCLE SAFETY

Bicycles are legal vehicles on Wisconsin roads and streets, except for high-speed limited access roads posted as restricting non-motorized users. Bicyclists are subject to the laws of vehicle operation just as motorists are, and motorists are required to pass bicyclists with at least 3 feet of space between them. Sidewalk bicycle riding is prohibited unless the local jurisdiction has passed ordinances permitting it. So bicyclists are required to share the streets with motor vehicles.

The bicycle is essentially a non-polluting means of transportation as well as recreation for children and adults well into old age. Most bicyclists use the bike to get from place to place - children and youth to school and others to work while all people can and many use bicycles for errands, visits, and getting to other activities.

### A. MAGNITUDE and SEVERITY of the BICYCLE RIDER CRASH PROBLEM

In the United States, 67 million bicyclists ride approximately 16 billion hours per year. Each year, approximately 700 bicyclists die from injuries due to crashes and more than 500,000 persons are treated in emergency departments. More than 90 percent of deaths from bicycle-related injuries are caused by collisions with motor vehicles. Bicyclist death rates per trip or per person mile of travel greatly exceed the rates for car occupants. (Harborview Injury Prevention & Research Center 2001.)

<b>Table 09-04: BICYCLE CRASHES 1994-2001</b>									
BICYCLES	1994	1995	1996	1998	1999	2000	2001	94—96 3-yr av	99—01 3-yr av
Bicycle Crashes	1,644	1,714	1,503	1,500	1,342	1,279	1,216	1,620	1,279
Bicyclists Killed	9	17	13	11	18	10	9	13	12
Bicyclists Injured	1,584	1,632	1,469	1,449	1,279	1,244	1,179	1,562	1,234
Bicyclist A-Injuries	276	275	203	178	161	152	156	251	156
Total K + A	285	292	216	189	179	162	165	264	169

Source: WisDOT Crash Database

The Wisconsin CODES Project linked 1999 hospital records to 852 bicycle crashes involving 1,069 vehicles with 1,186 occupants (including bicyclists). Of these 6 were seriously injured, 3 were transported and none were hospitalized. No bicyclist deaths were linked. In 1998, hospital e-code information for pedal cyclist injuries showed 124 persons injured, with an average hospital stay of 6.2 days and total in-patient charges of \$1,856,446.

Studies have determined that falls account for over 50% of all bicycle crashes and skills taught and laws enforced can help bicyclists avoid many falls as well as traffic conflicts (J. Kaplan 1975).

Head injuries are the leading cause of death and serious injury in bicyclists. Studies performed by the Safe Kids Coalition and Harborview Medical Research Center have determined that a correctly fitted and regularly worn helmet can prevent up to 85% of these serious injuries and many less serious head and facial injuries.

#### B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

Age: Children and youth, especially those 5-9 and 10-14, represent one-third to one-half of fatalities and at least half of injuries in bicycle-motor vehicle crashes, and studies indicate that these children have most often committed the error leading to the crash. Bicyclist death rates per 100,000 population are highest at age 10-14, but 56 percent of fatally injured bicyclists are age 20 or older.

Adult bicyclist errors account for only 40 percent of their crashes with motor vehicle crashes. The most common vehicle error causing a crash with a bicycle is motorists' left turns across the path of the bicycle.

Table 09-05 BICYCLE CRASH TYPE BY AGE		
Age	Crash type	Factors
Children 5-9	Driveway ride-out	Perceptual/sensory and judgment skills not developed
Children 11-14	Swerve in front of motorist (not an overtaking motorist error), stop sign violation and driveway ride-out	Not taught to scan over shoulder before changing lanes; follow bad adult models on bike and in vehicle at stop-signs and driveways; still lack visual and judgment skills to evade crashes when in trouble.
College Students 19-25	Same as 11-14 year olds	
Adults 15-64	Left turning motorist most common single crash with motor vehicle, crash types similar to those of motorcyclists	Bicyclists can travel at 20 mph or even faster downhill and have speed-related crashes. Motorists don't judge bicycle speed and distance accurately.
Older Adults 65+	May make same errors as child bicyclist. Same types crashes as other adults, usually intersection related Sensory and sometimes judgment errors	If new to bicycling or returning after many years of not riding If continuing rider from young adulthood and continuing good health  If aging related disabilities occur

Source: NHTSA and Cross & Fisher (1977), as amended by Arthur Ross and JoAnne Pruitt-Thunder

**Gender:** Death rates for male bicyclists age 20-54 have substantially increased in recent years. Males make more than twice as many bicycle trips as females and their death rate per 100,000 population is six times higher than for females.

**Head Injury:** Head injury is by far the greatest risk to bicyclists, comprising one-third of emergency department visits, two-thirds of hospital admissions, and three-fourths of deaths. Ninety percent of bicyclists killed in 2000 reportedly weren't wearing helmets.

**Time of Day:** Night riding without lights, especially on rural high-speed roads is very dangerous. Nationally, one-third of bicyclist fatalities occur on road with speed limits of 55 mph or higher. A headlight is required by law, even where sidewalk riding is permitted and on all bikeways. A red reflector is required, but a red taillight is recommended.

**Driver Impairment or Aggression:** Speeding and or alcohol/drug using motorists and motorists who do not know or do not agree that bicyclists have the right to the same roads/streets cut off bicyclists or pass too closely (less than 3 feet) intentionally and even force them off the road. They also fail to yield at crosswalks and intersections, including intersections with bicycle paths that have the right-of-way.

**Bicyclist Failure to Observe Traffic Laws:** Wrong-way riding is involved in 1/3 of all bicycle crashes. Bicyclists and in-line skaters using the road/street should always travel on the side with other traffic going the same direction. For bicyclists, the most likely citations to reduce crash risks are stop light and stop sign running (children at high risk, but they follow example of adults), wrong way riding, and mid-block entry (failure to yield). Violations of pedestrian safety on sidewalks, in

driveways and in both marked and unmarked crosswalks should receive attention whether violator is bicyclist or motorist.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES:

Strategy - Coordinated Strategies: Community coordinated activity to prevent bicycle related injury can gain more results by combining strategies indicated below and focusing on the group(s) of bicyclists and types of motorists in their area. Neither instruction, nor helmet encouragement are enough if parents and community leaders (law enforcement, teachers, city council, etc.) do not insist that good bicycling is practiced and laws are obeyed by both bicyclists and motorists.

Persons with the most need to be attentive of how bicyclists are doing in a community include parents, teachers and school officials, elected officials, older youth and adult bicyclists, employers and businesses, health care providers, law enforcement officers, bicycle clubs and shops, motorists and pedestrians.

Strategy-Education/Training: Bicycle safety instruction can be made available for both children and adults. Instruction is geared to correcting errors commonly made by children and for adults, giving experience, skills and information to build confidence bicycling in traffic.

- Children can be taught by their parents that certain limits apply and that more independence comes as skills and judgment develop. Two most important rules are 1) wear helmet correctly every time you get on the bicycle, even in the yard or driveway and 2) do not ride the bike out of the driveway without stopping at the end and looking for and waiting for traffic to pass. Parents should not permit young children to ride alone until the parent is confident that all basic skills have been acquired and are being applied by each child in the family. Children develop at different rates, so age is not always a good indicator.
- Basics of Bicycling (BOB) developed by Bicycle Federation of America. Curriculum with all lessons and video with introduction and 2 of the 7 lessons; 5 lessons are on-bike. Design age is 4th grade, useful for grades 3-5 with little or no modification of difficulty level. Written request and commitment to implement must be submitted by School District (1 per district) BOTS purchased curriculum packages, so no cost to educational agency.
- Wisconsin offers Teaching Safe Bicycling every April to train bicycle safety trainers who organize on-bicycle instruction events such as rodeos. Basic traffic skills and information about causes of child crashes and developmental limitations are offered at these events.
- Adult courses developed by League of American Bicyclist and Bicycle Federation of Wisconsin are also available.

Strategy - Injury Control – Helmet Use: 85 percent of head or brain injuries can be avoided or their severity reduced by correct consistent helmet use. Bicycle skill Instruction without helmet promotion fails to recognize that almost every bicyclist will be in at least one serious crash over a lifetime of riding. A head injury in that single crash can lead to death or permanent disability which could have been prevented by a helmet. Helmet promotion should not be restricted to children.

Although they have more crashes in the learning years, children's heads are no more at risk in a crash than are adult heads. A fall from only 2 feet can cause brain injury. On the other hand, helmet promotion alone will not prevent crashes, and bicyclists sustain some level of injury in nearly every crash.

Inexpensive helmets can be acquired individually or for large group distribution. Peer pressure has much to do with helmet use, and equipping a whole school or neighborhood and applying adult expectation for children as well as other adults to wear their helmet is more effective than simply parental rules or legal mandates.

Strategy - Enforcement: Quality enforcement can reduce up to 90 percent of bicycle-motor vehicle crashes. Law enforcement officers can educate youngsters, adult bicyclists and motorists at traffic stops about ways to keep bicyclists safe. Officer activities range from assisting at instructional events to giving citations for the most serious violations. For motorists these include speed, operating under the influence, failure to yield (especially on turns), and intentional aggressive activity toward a bicyclist. For bicyclists, these include stoplight and sign violations, wrong-way riding, dart-outs and swerves in traffic, and night riding without lights. Wisconsin offers Enforcement for Bicycle Safety, an officer training course that develops officers' skills and their recognition of violations by both bicyclist and motorists that make bicycle travel dangerous.

Strategy - Evaluation: Observation of current practices can help determine the focus of other strategies. For example, while a large number of helmet promotion, sales or give-away projects have occurred over the past few years, we don't know whether they have resulting in any significant increase in consistent correct helmet use by target groups. If the target activity was aimed at elementary school-age children, we don't know whether other groups such as parents or adult or young bicyclists were affected in any way. Observational studies of helmet use, common bicycling errors, conflicts and the types of bicyclist involved will provide some much-needed rigor.

#### D. CRITERIA FOR PROJECT SELECTION:

Priority for bicycle safety funding will be give to communities with: (1) populations in excess of 10,000, (2) unusual exposure factors for bicycle crashes, (2) at least three years of data demonstrating a bicycle crash problem, (3) a high-level of community buy-in demonstrated by Project Match, (4) a plan for coordinated activity employing multiple actors, strategies, and/or fund sources, (5) an evaluation plan, (6) demonstrating good self-sufficiency within 1-3 years, and (6) a history of using Highway Safety funds effectively.

Communities with functioning Safe Community Coalitions that have used data to select bicycle safety as a priority area for community activity will be given preference.

Smaller communities may be eligible for start-up grants if they demonstrate problems of unusual scope or unusual community buy-in, plus unusual effectiveness in past Highway Safety Projects.



Communities may have funding for same activities for no more than 3 years, including both planning and implementation phases. Each year's activity will be evaluated, and communities that have not performed the prior year's contract will not be eligible for additional years of funding.

## SCHOOL BUS SAFETY

**Table 09-06 -- SCHOOL BUS CRASHES 1994-1996; 1999-2001**

SCHOOL BUS	1994	1995	1996	1998	1999	2000	94—96	99—01
							2001	3-yr av
School Bus Crashes	1,126	1,117	945	771	838	835	800	1,063
Schl Bus Occ Fatalities	1	0	2	0	0	0	0	1
School Bus Occ Injuries	628	423	454	264	358	315	369	502
Schl Bus Occ A-Injuries	19	7	7	6	2	4	4	11
Total K + A	20	7	9	6	2	4	4	12

Source: WisDOT Crash Database

Few school bus crashes result in serious injury, except those that involve pedestrians or motorists in other vehicles. School bus passengers are four times more likely to be killed as pedestrians near the bus than as passengers while on the bus. Motorists who pass a school bus while stopped with red alternating lights flashing can be cited by LEA if seen by officer or if bus driver gets license number. Often bus driver has no time to see and record this number while main job is getting child on/off bus safely. The Wisconsin Legislature passed a law requiring buses to have gates preventing children from being run over by the bus, but these gates will not address the more frequent cause of school bus-related injuries to children; that is, violations by passing motorists.

Most often injured in school-bus-related crashes are the drivers and occupants of the other vehicle. Children boarding/deboarding the bus are injured in lower numbers, but are double-counted as pedestrians in Wisconsin. Occupants on the bus have little risk of serious injury, even in a crash, except in rare instances, such as when a semi is the other vehicle.

### C. STRATEGIES FOR DECREASING DEATHS & INJURIES in SCHOOL BUS CRASHES:

Education – Public Information Materials: These materials are targeted at motorists, educating them about the provisions of school bus safety laws, emphasizing the stop requirement for all lanes on undivided highways when a school bus is stopped with red lights flashing.

## PROGRAM OBJECTIVES

**Objective 1:** To decrease bicycle-motor vehicle crashes to fewer than 1,200 and total bicyclist deaths and incapacitating injuries to 120 for 2003.

Performance Measure: The average of three calendar years of bicycle crashes reported on the state police crash report.

Baseline: In 1994, 1,693 bicyclists were involved in reportable crashes. The 1994-1996 average was 1,681.

Status: In 2001, 1,216 bicyclists were involved in reportable crashes. The 1999-2001 average was 1,279. In 2001, 9 bicyclists were killed and 156 sustained A injuries.

**Objective 2:** To decrease pedestrian crashes to 1,600 and total pedestrian deaths and incapacitating injuries to 380 for 2003.

Performance Measure: The numerical average of three calendar years of pedestrians involved in crashes reported on the state police crash report.

Baseline: In 1994, 2,156 pedestrians were involved in reportable crashes. The 1994-1996 average was 2,048.

Status: In 2001, 1,547 pedestrians were involved in reportable crashes. The 1999-2001 average was 1627. In 2001, 42 pedestrians were killed and 349 sustained A injuries.

## TABLE of STRATEGIES & ACTIVITIES

### STRATEGY -- ADMINISTRATION

**Activity:** WISCONSIN PEDESTRIAN and BICYCLE SAFETY PROGRAM  
MANAGEMENT State Approp. 461

**Problem:** State-funded Pedestrian and Bicycle Safety Program requires full-time administrator. Program created in 1984. Coordination with FHWA funded Bicycle facilities planner and program.

**Objective:** To coordinate and manage the State Pedestrian and Bicycle Safety Program & other state-level safety activity.

**Resources:** \$65,000 for 1.0 FTE wage, fringe, DP, training, M&S.

**Self-sufficiency:** This is a statutorily directed and funded position.

**Evaluation:** Administrative evaluation of level of activity and output.

### STRATEGY -- EDUCATION –Public Information and Education

**Activity:** 03-09-01-PS PI&E – PEDESTRIAN AND BICYCLE SAFETY

**Problem:** Pedestrian and Bicycle Safety audiences and need for information vary by age and role. Materials must be targeted for a wide variety of audiences and must be revised frequently to address changing social and environmental factors.

**Objective:**

1. Maintain current materials to meet demand, evaluate validity and effectiveness, need for new or updated materials, develop new materials as required
2. Address target audiences: children under 15, elderly adults, alcohol-impaired travelers, and motorists sharing the road with them – with appropriate messages in appropriate formats.
3. Increase motorist and parental awareness of special problems of school zones and school buses.
4. Develop new youth-oriented materials.

**Resources:** \$ 117,000. \$100,000 for reprints and purchases; \$17,000 for evaluation and new materials.

**Self-sufficiency:** Approximately \$35,000 state-funded level of effort. Internet offers possibility of decreased cost of development/ handling of paper.

**Evaluation:** Administrative. Baseline survey required, then post-use survey of change in KAB

**Activity: PI&E – PEDESTRIAN AND BICYCLE SAFETY - State Approp. 461**

**Problem:** Pedestrian and Bicycle Safety audiences and need for information vary by age and role. Materials must be targeted for a wide variety of audiences and must be revised frequently to address changing social and environmental factors.

**Objective:** Maintain current materials to meet demand, evaluate validity and effectiveness, need for new or updated materials, develop new materials as required

1. To address target audiences: children under 15, elderly adults, alcohol-impaired travelers, and motorists sharing the road with them – with appropriate messages in appropriate formats.
2. To increase motorist and parental awareness of special problems of school zones and school buses.

**Resources:** \$27,000 for reprints, purchases, evaluation and new materials; \$5,000 for bike law printing..

**Self-sufficiency:** State funding – possible increase in program size. Internet offers possibility of decreased costs.

**Evaluation:** Administrative. Baseline survey required, then post-use survey of change in KAB

## **STRATEGY -- EDUCATION – Training**

**Activity: 03-09-02-PS TRAIN the TRAINER, TEACHING SAFE BICYCLING and BASICS OF BICYCLING (BOB)**

**Problem:** Certain unsafe behaviors by bicyclists and by motorists contribute to the vast majority of bicycle - motor vehicle crashes. **Teaching Safe Bicycling (TSB)** developed by Wisconsin DOT, Bureau of Transportation Safety Bicycle/Pedestrian Safety Program in consultation with City of Madison DOT, UW-Madison Agriculture Extension, and the Wisconsin Department of Health and Family Services addresses these behaviors.

**Basics of Bicycling (BOB)** provided by BOTS-arranged instructors. On school district commitment and instructor availability, two day course may be offered if minimum of 15 potential BOB instructors are available. This instructor training is not required for BOB acquisition & implementation. This or TSB is recommended for basic instructor preparation. School must host and arrange for lunch and breaks, classroom and riding space indoors as well as outdoors

**Objectives:**

1. To provide 3-4 annual TSB instructor workshops for teaching safe bicycling skills to children Required pre-registration, bicycle riding and helmet use. Carries DOJ credit for LE officers.
2. to provide BOB instructor training to 40 educators assist them in implementing BOB as standard part of school or other educational program activities.

**Resources:** \$5,000. \$4,000 for TSB instructors, travel, materials/supplies, meals for participants. \$ 1,000 for BOB instructors, travel, materials/supplies.

**Self-sufficiency:** Most of this training is for trainers who take what they have learned (KAB) back into their communities. Continuous need for new trainers, and for technology updates.

**Evaluation:** Reviews of products, instructors, materials. Outcome evaluation statewide and in communities where training has been implemented over a period of years.

**Activity: 03-09-02-PS OFFICER TRAINING -- ENFORCEMENT FOR BICYCLE and PEDESTRIAN SAFETY**

**Problem:** Certain unsafe behaviors by bicyclists, pedestrians and motorists contribute to the vast majority of their crashes. Bicycles are not perceived as equal users of the road by themselves and others and the laws protecting pedestrians are routinely ignored. As more enforcement officers become aware of the laws governing pedestrians and bicycles on roadways, and of strategies for enforcing them, they will contribute to increased community perception of the rights and responsibilities of these roadway users.

**Objectives:** 1. Improve marketing of EBS course and prepare/support adequate instructors for this 2-day workshop for Law enforcement officers who do or supervise traffic enforcement. Do not need to be bicycle officers, but must ride as part of instruction and wear helmet. Manual is included in course and available for review. Course fee is reimbursable by DOJ and carries 12 in-service credit hours.  
2. Organize Bicycle Law Enforcement Summit for traffic (both bicycle mounted and MV)/ community policing/problem oriented policing/ LEA Safety/, and school liaison officers.

**Resources:** \$15,000 for instructor fees, travel, meals, lodging, M&S, printing, postage.

**Self-sufficiency:** Attendees can seek reimbursement from Department of Justice for in-service credit.

**Evaluation:** Reviews of products, instructors, materials, LEA acceptance and utilization. Outcome evaluation statewide and in communities where training has been implemented over a period of years.

## **STRATEGY -- EMPOWERMENT**

**Activity: 03-09-04-PS BIKE/PEDESTRIAN COMMUNITY PROJECTS.**

**Problem:** Combinations of safety strategies at the local level are key to pedestrian and bicycling safety. Pedestrian and bicycle issues are an excellent means of motivating the formation of Safe Communities coalitions, and priority for funds can be ascertained using both crash and Safe Communities data. The best way to begin interdisciplinary cooperation can be in production of small, popular events featuring safety of children. Bicycle rodeos, Walk Our Children to School, and other such community events provide a feeling of accomplishment in those participating and prepare them for Safe Communities activities. Emphasis on Bike or Pedestrian enforcement in training both motivates and educates traffic officers to prevent these crash types.

**Objectives:** 1. To encourage systematic approach to pedestrian and bicycle as well as other safety problems and encourage collaborative multi-disciplinary planning and production of small safety-oriented events.  
2. To integrate helmet promotions into community bike safety activities, and all injury prevention efforts.  
3. To support 8 communities in organizing and implementing Pedestrian Road Shows using WI-trained facilitators.  
4. To assist 30 communities in producing local bicycle safety events for 1500 children ages 7 to 14.  
5. To assist 20 communities to increase quality enforcement for bicycle and pedestrian safety.  
6. To assist 30 communities to improve child travel choices and community involvement in best routes to school through WOCS projects.  
7. To initiate and evaluate one umbrella School Age (4-18) Safety Activities project in support of the RFP Evaluation Project. Note: Can be combined with occupant protection and youth alcohol activities. See 03-02-04 description.

**Resources:** \$235,000. \$30,000 for grants of from \$1,000 to \$6,000 per community for wage, fringe, M&S, equipment.  
\$20,000 for contract for institutional research

\$25,000 for Pedestrian Road Shows - part time coordination, facilitator fees and expenses, participant snacks/lunches, materials and supplies and may include hardware or software if needed to manage pedestrian planning. 1-year funding with second year for participation in workshops.  
 \$25,000 for grants to 13 communities for BOB Curriculum – bicycles, helmets, video equipment, instructional supplies. In some cases may include trailer or storage where multiple school sites/districts involved. Up to 3-yr funding  
 \$30,000 for grants to 30 communities for on-bicycle instruction events; M&S. No bicycles may be purchased with this activity - see BOB for on-going instruction. Up to 3-year funding.  
 \$75,000 for grants up to \$5,000 per community for ped/ bike/mixed law enforcement. Up to 3-yr funding  
 \$30,000 for grants to 30 communities for WOCS activities. 1- yr funding.

**Self-sufficiency:** One-time funding for Pedestrian Road Shows; community then develops its own project(s) to implement its own recommendations. Can include a second year of funding to attend PRS summit with others who held PRS. Small grant amount is easy to replace locally.

**Evaluation:** Number of communities generating short- and long-term safety recommendations. Compare Road-show communities pedestrian crash experience with control communities; compare crash experience of BOB-trained students with control. Number of children, parents, volunteers who successfully complete planned activities. Number of agencies and education/enforcement stops of bicyclists, pedestrians and motorists. BOTS will aggregate community data to determine outcome effectiveness.

## STRATEGY -- EVALUATION – Surveys and Studies

### Activity: 03-09-05-PS PEDESTRIAN AND VEHICLE BEHAVIORS – FAILURE TO YIELD STUDY

**Problem:** A number of Pedestrian - Motor Vehicle crashes occur due to one or both of the parties failing to yield.

**Objective:** Conduct a study to better understand the pedestrian and driver behaviors and motivations to Fail To Yield.

**Resources:** \$10,000 for contract for consultant, printing, publication.

**Self-sufficiency:** Need for future surveys will be determined by the use of this first one. Protocol will be made available to communities for local surveys.

**Evaluation:** Administrative evaluation of survey process. Evaluation of statistical significance of samples of differing sizes, probative value of analyses, possibilities for data linkages, for example to law enforcement activity, etc.

### Activity: 03-09-05-PS OBSERVATIONAL SURVEY – BICYCLIST BEHAVIORS AND HELMET USE

**Problem:** Current level of helmet use or of correct use appears to vary widely from community to community in Wisconsin, but no empirical data are available. Similarly, bicyclist (and motorist) compliance with laws and safe practice varies and has not been measured. These data are necessary for bicycle safety program development and evaluation.

**Objective:** Select a consultant to assist program staff in the design and implementation of the survey and analysis of survey data. Use findings of survey and analysis in the planning of future bicycle safety plans at state and local levels, in development of safety messages. Distribute findings widely.

1. To record and encourage better use of data at state and local levels.
2. To encourage systematic approach to pedestrian and bicycle safety problems.

**Resources:** \$10,000 for contract for consultant, printing, publication.

**Self-sufficiency:** Additional surveys as needed. Protocol will be made available to communities for local surveys.  
**Evaluation:** Survey process, statistical significance of samples of differing sizes, probative value of analyses.

**03-10**  
**CORRIDOR and COMMUNITY TRAFFIC SAFETY**  
**And SAFETY OUTREACH**

**Program Goal:** To promote increased multidisciplinary safety activities in 20 communities.

**Program Goal:** To inform the general public and safety advocates of changes in laws, new data, new studies, program opportunities, etc., and to reach high-risk audiences with informational and motivational safety messages.

**FUNDS**

<b>CORRIDOR/COMMUNITY TRAFFIC SAFETY 10</b>						
Activity	Title	Fed	State	Local	Tot Prog	Loc Benefit
	<b>COMMUNITIES</b>					
03-10-01	Program Management	375,000	80,000	0	455,000	93,750
03-10-02	WAWHSL Support& Conf	13,000	0	5,000	18,000	6,500
	WHSP Support	4,000	4,000	4,000	12,000	2,500
	Safe Community Outreach	41,000	10,000	10,000	61,000	9,750
03-10-03	Corridor Safety	100,000	0	50,000	150,000	100,000
	Safe Communities	360,000	0	300,000	660,000	360,000
	Strategic Plan	40,000	10,000	0	50,000	25,000
	<b>SAFETY OUTREACH</b>					
03-10-04	PI&E Program Mgmt	60,000	2,000	2,000	64,000	15,000
	Community PI&E	75,000	10,000	1,000	86,000	25,000
	TSR and Outreach	40,000	10,000	10,000	60,000	20,000
03-10-05	Governor's Conference	25,000	10,000	25,000	60,000	12,500
	Diversity Outreach	7,000	2,000	5,000	14,000	3,500
<b>402 TOTAL</b>	<b>(CP)</b>	<b>1,140,000</b>	<b>138,000</b>	<b>412,000</b>	<b>1,690,000</b>	<b>673,500</b>

**PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION**

**I. CORRIDOR and COMMUNITY TRAFFIC SAFETY PROGRAMS**

**A. MAGNITUDE and SEVERITY of the PROBLEM**

In an era of diminishing federal resources and increasing devolution, local units of government and non-government organizations and individuals need the knowledge and tools necessary to address their traffic injury problems themselves. Government assistance in the form of facilitation for community development and access to information and other strategic resources has been shown to be a more effective long-term strategy for effective program development and implementation leading to the desired behavior changes. Long-term individual and community-based measures are crucial for addressing complex problems like drinking and driving that are determined by a myriad of lifestyle and psychosocial factors.

Old-style mass media campaigns are known to be expensive and relatively ineffective. To reach the new driver or the recalcitrant driver, market-savvy information or motivational materials should be integrated into multiple-strategy social marketing campaigns, generally developed at the community level, that not only get their attention, but motivate them to change their behavior.

#### B. RISK FACTORS for CRASH INVOLVEMENT and INJURY:

Targeting programs, activities and messages requires the highway safety professional to achieve the cultural competence of his social science and public health counterparts. Messages that are based purely on demographic factors are not so successful as those that incorporate the message into the entire psychosocial context in which the target group operates. This requires a grounding in cultural norms other than those of the public safety professional or of the predominant culture.

### **SPECIAL POPULATIONS**

While the Wisconsin population is nearly 90 percent of European descent, the 2000 U.S. Census documents that our population is becoming increasingly diverse, and "one size fits all" strategies, messages, and approaches are no longer sufficient to address our highway safety issues. We must learn from our partners in the human services how to achieve our safety goals while being culturally appropriate and sensitive to the differences between diverse populations in order to achieve the desired behavior changes.

And the 2000 census does not document the explosive growth of the Hispanic/Latino population, which had risen to 192,921 or 3.6 percent of the total and has continued to rise rapidly since 2000. The most numerous groups are: White, 4,769,857 (88.9%), Black/African American, 304,460 (5.7%), Asian, 88,763 (1.7%), and Indian/ Native American, 47,288 (0.9%). "Other" and two or more races constitute another 2.8% of the population.

African Americans: The largest part of the African-American population is found in larger cities. Many are found in densely populated inner-city neighborhoods. Poverty and urban circumstances may result in different patterns of motor vehicle use than the predominant culture. Observational surveys in larger cities indicate that African Americans have extremely low safety belt use.

American Indians: While "race or ethnicity" is not collected on Wisconsin crashes, Indian Health Service data show that motor vehicle crashes are a leading cause of death for American Indians ages 1-44. Motor vehicle related death rates for American Indians in the HIS Bemidji Area are nearly three times the U.S. All-Races death rate. Motor vehicle deaths are especially high among American Indians age 15-44 years. At-risk groups include pedestrians, especially children, males of all ages, and alcohol involvement, low rates of occupant protection use (seat belts and child car seats) contribute to these high rates. At the April, 2000 conference: "A Community Response to Native American Transportation Safety," tribes from three states provided a new perspective on working together. Conference results included understanding of the need for culturally-sensitive educational materials, and for culturally-relevant training for tribal leaders and law enforcement officers.



Hmong: Wisconsin's Hmong population still maintains many features of its tribal, oral tradition, and is a particularly difficult population to reach using commonly used strategies and messages.

Hispanic/Latinos: Wisconsin's ethnic Latino population is growing extremely fast and its culture is not well understood by the predominant culture here. Anecdotal data indicate that Latinos in Wisconsin may have disproportionate incidence of driver licensing issues and alcohol impaired driving.

Amish: Our Amish population, unlike most other minorities, is predominantly rural, located in only a few areas, and encounters special road use problems because of its choices of transportation modes.

#### D. STRATEGIES FOR DECREASING DEATHS & INJURIES

The 1999 Iowa study of traffic safety communications identified community programs using an integrated set of approaches involving mass communication, face-to-face program elements, community action and small-scale educational activities as being shown to effect lasting attitudinal and behavioral change. Thus, highway safety advocates are following their public health partners toward production of multi-component programs addressing multiple levels of social, psychological and structural influences on driver behavior.

SAFE COMMUNITIES: Highway Safety funds have supported the statewide development of the "Safe Community" local empowerment concept first developed by the World Health Organization and adopted by the National Highway Traffic Safety Administration and the US Department of Health and Human Services.

Safe Communities-Wisconsin is a strategic planning approach to community injury prevention and safety promotion. Wisconsin encourages and supports community-based injury control efforts. A Safe Community is one in which there is broad-based, multi-disciplinary leadership for injury control. Engineers, Planners, Law Enforcement, Public Health Professionals, EMT's, Teachers, Doctors, Nurses, Business owners, Volunteers, Citizens, Parents and other work cooperatively to plan and implement community injury prevention efforts. Collaboration and communication are key to successful Safe Community efforts.

Safe Communities-Wisconsin is both a way of doing business and a program supported in the Highway Safety Plan. BOTS supplies participating Safe Communities with technical support for strategic planning and health promotion, tools and materials, and grant funding for coordination and coalition-directed activities, as well as an annual conference of participating communities. Local fund-raising and coalition-building skills training is planned for 2003.

Highway Safety funds are used to support local coalition development and leadership. 13 communities have developed "Safe Communities" coalitions with the assistance of Highway Safety funding and technical support. Three additional communities have developed "Safe Community" coalitions on their own.

The "Turning Point" project State Public Health Plan for the Year 2010 has incorporated the Safe Community model as the means of achieving its priority objective of decreasing motor vehicle-related injuries and deaths in Wisconsin.

**CORRIDOR SAFETY PROGRAMS:** The Wisconsin Department of Transportation is committed to building four-lane highways on three corridors; State Highway 12, State Highway 57 and State Highway 10. "Corridor Safety Programs" on these corridors are planned to continue until construction is completed in 2005. "Corridor Safety Programs" consist of Highway Safety Funded enforcement and publicity, and WisDOT Division of Districts and Division of Infrastructure Development funded minor engineering improvements. No local activities are planned.

#### EDUCATIONAL/ MOTIVATIONAL OUTREACH

Management: The Communications Program Manager will assist each program specialist in the development of communications strategies, educational materials and marketing or social marketing techniques. In addition, the Communications Manager will arrange for the dissemination of information about traffic safety issues, programs and techniques by means of media releases, print newsletters and Internet publications, and by coordination of state safety conferences and advocacy group meetings.

Communications/Education/ Marketing: Effective information dissemination and marketing creates an awareness of the issues and furthers the principles of traffic safety in all arenas. PI&E is intended to be an integral part of each program activity and will be evaluated as a contributing factor to the program's success. Our "toolbox" of strategies include, but are not limited to, advertising, media programming, media relations, information programming, training and development, advocacy leadership, response feedback, special events, promotional items, product marketing and testimonials.

Mass Media: Education alone is ineffective at best; it can even increase the risk, according to a May 2001 article in the Insurance Institute's Status Report. A recent literature review of the assumptions, premises and results of 25 years of traffic safety communications campaigns provided little evidence to support implementation of "mass media only" programs to modify negative traffic safety behaviors. (Iowa State U, 1999). Mass media alone can introduce broad health promotion concepts and accurate information on safe traffic measures, but they do not produce significant changes in attitudes and values on social issues or adoption of preventive behaviors such as seat belt use.

Integrated Campaigns: Information campaigns will use multiple media wherever appropriate and will combine mass media with community, small group and individual activities. PSA's will be de-emphasized in favor of use of news media, target group newsletters, etc. to more effectively direct messages to the target, secondary targets or opinion leaders. Effective social marketing techniques to develop information and education programs will be used in tandem with enforcement, engineering, education and emergency medical services. "Branding," or repetition of

a single message, permits consumers to readily recognize the source, creating awareness of the issue/problem.

Enforcement Campaigns: Perception of risk through effective mass media techniques has been shown to improve the immediate and long-term effectiveness of enforcement campaigns. Improved traffic safety laws, with publicity and education, can change behavior. The “Elmira” model of waves of publicity and enforcement has shown success for more than 20 years. Thus, all Wisconsin enforcement activities will include a publicity campaign that precedes the activity and has a message relating to the presence of enforcement patrols and their immediate, high-probability consequences, whether the patrols occur in waves or as a general deterrence activity.

Marketing: PI&E programs are more effective if marketing techniques are adopted: these include research, positioning, message design, testing and evaluation. The sophistication of today’s highway safety consumer demands the use of social marketing principles to effectively reach our audiences.

Targeting/ Segmentation: The programs which reach the population “segments” identified with a message they will receive – not what we “think” they want to hear. BOTS will incorporate targeting into its overall activities by creating primary target profiles for each activity undertaken, selecting the easiest to reach or most at risk markets, with clear segment specific objectives.

To achieve the “right” message, BOTS will incorporate the following in developing PI&E strategies for each of the highway safety program areas:

1. Identify the problem or problems using statistical information available, as well as the perception of our driving public. Perception is reality.
2. Target messages by segmenting the market. There is no such thing as “general audience” today.
3. Establish partnerships or “secondary targets” of those entities that can assist in achieving our goals.
4. Develop the program through use of focus groups and market testing. Make change not noise.
5. Put the strategy into action, positioning the issue, or branding it, using messages the public becomes familiar with, will heighten awareness and are immediately relatable to a specific program.
6. Because social marketing is more than delivering messages via mass media, we will continue to develop innovative methods using the marketplace of ideas and be prepared to change ourselves in the process. Since communication goes both ways, we must answer the question of “What’s in it for them?” when developing campaigns.

7. Evaluate the program through administrative methods, evaluate impact on knowledge, attitude and behavior using opinion/perception surveys and marketing surveys, and ultimately perform outcome evaluation of reduction of deaths and injuries resulting from motor vehicle crashes caused by the targeted behaviors.

#### D. CRITERIA FOR PROJECT SELECTION

Safe Community Coordination Projects: Priority for Safe Communities funding will be given to the counties and communities: (1) with populations in excess of 10,000 and with many highway miles and other exposure factors; (2) With an existing and functioning injury prevention coalition that is broad-based and representative of the community's demographic make-up, (3) demonstrating use of multiple sources of local data (crash, citation, CODES, e-codes, surveys) to identify local problems and select projects; (4) demonstrating willingness to coordinate safety strategies, programs and funds; (5) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (6) with a plan to evaluate the effectiveness of coalition-supported activities; and (7) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

Smaller communities may be eligible if they demonstrate problems of unusual scope or usual buy-in and effectiveness in past Highway Safety projects.

Safe Community Umbrella Highway Safety Projects: Priority for Safe Communities funding will be given to the counties and communities: (1) with populations in excess of 10,000 and with many highway miles and other exposure factors; (2) With an existing and functioning injury prevention coalition that is broad-based and representative of the community's demographic make-up, (3) demonstrating use of multiple sources of local data (crash, citation, CODES, e-codes, surveys) to identify local problems and select projects; (4) with the most total crashes or crashes of a particular type with serious injuries and deaths and/or a high injury to death ratio; (5) demonstrating willingness to coordinate safety strategies, programs and funds; (6) demonstrating willingness and ability to commit local funding and other match; and to sustain the effort without Highway Safety funds; (7) with a plan to evaluate the effectiveness of coalition-supported activities; and (8) with a history of using Highway Safety funds effectively as seed money to develop continuing programs.

Smaller communities may be eligible if they demonstrate problems of unusual scope or buy-in and effectiveness in past Highway Safety projects.

## **PROGRAM OBJECTIVES**

### **CORRIDOR/COMMUNITY SAFETY PROGRAM**

**Objective 1: To provide outreach, technical assistance and guidance on no less than a quarterly basis to community representatives in Wisconsin's 72 counties.**

Performance Measure: Attendance at all Traffic Safety Commission meetings. Number of meetings with representatives of multiple disciplines in county and sub-county political jurisdictions.

Baseline: In 1994, BOTS staff attended most quarterly Traffic Safety Commission meetings. BOTS staff meet almost entirely with law enforcement officials.

Status: During **2000**, BOTS staff attended most TSCs. BOTS staff met with multi-disciplinary coalitions in all organized Safe Communities.

**Objective 2: To provide training, technology transfer and technical assistance to at least 300 safety professionals and to assist with the coordination of at least two volunteer organizations during 2002.**

Performance Measure: Attendance at subsidized conferences. Number of programs initiated by targeted groups.

Baseline: In 1994, 400 attended Governor's Conference, 71 attended WAWHSL Conference, 48 attended Safety Coordinators Conference, and 300,000 attended Farm Progress Days, many visiting the BOTS safety display.

Status: In **2000**, 350 attended Governor's Conference, 50 attended WAWHSL Conference, 58 attended Safety Coordinators Conference, and 300,000 attended Farm Progress Days, many visiting the BOTS safety display.

**Objective 3: To encourage locally directed multi-disciplinary safety activities in the top 10 most populated counties or communities by the end of 2003 and the top 25 most populated counties or communities by the end of 2007.**

Performance Measure: Number of counties and sub-county communities in which continuing multi-disciplinary safety activities are occurring.

Baseline: In 1994, Wisconsin Traffic Safety Assessment was completed by more than 100 communities. Development of Action Guides began. State-level committee organized to coordinate community grant activity. No grant program had yet been developed.

Status: In 1999-2001 the City of Madison received a grant to serve as a pilot for Safe Communities development and administration. Other communities received small grants.

**Objective 4: To evaluate the effectiveness of existing BOTS radio, television and print medium public information and education materials in changing knowledge, attitudes and behaviors, and to apply results to the development of the year 2004 HSP.**

Performance Measure: The percent of all program-level and project level public information campaigns for which the distribution to target audiences is mapped and effectiveness of changing knowledge, attitude and/or behavior is evaluated.

Baseline: In 1994, little evaluation was performed.

Status: A 1997 phone survey to 500+ major users of printed BOTS materials, published in 1999, identified how the materials were used and asked for suggestions for improvements. In 1999, all radio and TV stations were surveyed to determine the use of and to request improvements to AV public service announcements was performed by RPMs.

## TABLE of PROGRAM STRATEGIES & ACTIVITIES

### CORRIDOR/ COMMUNITY PROGRAMS

#### STRATEGY -- ADMINISTRATION

##### Activity: 03-10-01-CP PROGRAM MANAGEMENT and REGIONAL OUTREACH

**Problem:** Need to market highway safety and disseminate the latest information to advocates and communities, and to empower them to act either independently or working with BOTS. Behavior change requires statewide traffic safety advocacy, dissemination of information, assistance in community organization, project writing, monitor local program and fiscal activity, statutorily required attendance at CTSCs and attend other local meetings.

**Objective:**

1. BOTS presence at all County Traffic Safety Commission meetings
2. Encourage project activity in high K-A communities, assist them in writing quality grant applications, and monitor project activity, expenditures and equipment use.
3. Empower communities to act independently and to develop new or encourage long-term safety advocates to maintain their commitment.

**Resources:** \$375,000 for 6.0 FTE, travel, training, fleet, DP, M&S.

**Self-sufficiency:** Increasing use of electronic means of communication, increasing sophistication and empowerment of advocates and communities.

**Evaluation:** Administrative. Compare program objectives and planned activities with accomplishments and comment on reasons for success or lack thereof. Quarterly and final reviews and Annual report. Contact reports, project monitoring reports, Inventory updates. CTSC minutes, and number of Safe Community coalitions developed.

#### STRATEGY -- EMPOWERMENT – Coordination

##### Activity: 03-10-03-CP WISCONSIN HIGHWAY SAFETY PARTNERS (Formerly SMS)

**Problem:** Wisconsin has numerous agencies and organizations promoting traffic safety in the state, but no organizing entity. WisDOT Bureau of Transportation Safety coordinate semi-annual meetings of the Wisconsin Highway Safety Partners.

**Objective:**

1. Implement the 1996-1999 strategic plan for SMS in Wisconsin.
2. Support 4 meetings and 12 sub-committee meetings (50 people attend full meetings and all sub-committee meetings are held at least quarterly)
3. Publicize SMS (50 videos, 250 brochures, 300 newsletters distributed)

**Activities:** Support WHSP meetings; publicize WHSP

**Resources:** \$4,000 for M&S, mailing, travel and meals.

**Self-sufficiency:** BOTS will continue to work toward development of self-sufficiency plan for WHSP.

**Evaluation:** Administrative. Determine whether WHSP serves any useful purpose.

**Activity: 03-10-03-CP VOLUNTEER ACTIVITIES -- Wisconsin Association of Wo/Men Highway Safety Leaders (WAWHSL)**

**Problem:** Outreach to safety professionals and advocacy groups is necessary to keep them informed and motivated to work locally and in state-level organizations on traffic safety issues.

**Objective:** 1. To conduct one 2-day training workshop for the for 50-100 WAWHSL volunteers.  
2. To fund state WAWHSL conference and delegate travel to NAWHSL and Board of Directors meetings.

**Resources:** \$13,000 (\$9,000 for WAWHSL support and \$4,000 for WAWHSL conference) for travel, subsistence, fees, M&S, contractual services.

**Self-sufficiency:** None.

**Evaluation:** Administrative: Level of highway safety activity. Conference evaluations.

**Activity: 03-10-03-CP – COMMUNITY CAPACITY BUILDING**

**Problem:** Local efforts have been shown to be most effective in changing behavior. Improved access to and use of information and skills training for community development will empower communities to develop and sustain the efforts required. Skills training for coordination and cooperation, for asset identification and asset building are an important first step for community competence to act.

**Objective:** 1. To provide technical assistance for community development to Wisconsin communities in all five BOTS regions.  
2. To ingrain the Safe Communities concept into the most populous Wisconsin communities.

**Resources:** \$ 39,000 for U.W. Extension services, travel, meals, lodging, M&S, printing, postage.

**Self-sufficiency:** This project will continue until an agreed-upon level of competence is reached. Empowered communities should make best use of limited resources available to them.

**Evaluation:** Training evaluations. The Extension experts and BOTS will decide upon an acceptable degree of competence to be reached and the number of communities which should receive these services.

## **STRATEGY -- EMPOWERMENT – Community Programs**

**Activity: 03-10-04-CP COMMUNITY PROGRAMS - CORRIDOR SAFETY**

**Problem:** FHWA sponsored program intended to produce coordinated multidisciplinary efforts for high-crash roadway segments.

**Objective:** Provide grants for traffic law enforcement agencies in those selected corridors.  
1. To reduce driver causal crashes in selected highway corridors by 10% over past 3-yr average.  
2. To support Corridor Safety Programs on portions of USH 10, USH 12 and STH 57

**Resources:** \$100,000 for wage, fringe, mileage, PI&E development.

**Self-sufficiency:** Intended to be temporary fixes until reconstruction on some roadways, and permanent on others. Local and state funds should continue efforts if shown to be effective in decreasing crashes.

**Evaluation:** 3-year moving average crash experience.

**Activity: 03-10-04-CP COMMUNITY PROGRAMS - SAFE COMMUNITIES**

**Problem:** Local efforts have been shown to be most effective in changing behavior. Improved local access to and use of information and improved community development skills will produce the empowerment necessary for the sustained efforts required. Coordination of local injury data and resources is a first step in a strategic process of producing safer communities. 17 coalitions in place in 1999.

**Objective:**

1. To Form 25 Safe Communities (Injury Control) Coalitions in WI by 2005. To provide materials, training, grants, other support for the development of local coalitions, and other technical assistance as requested.
2. To assist in continuation of existing coalitions.

**Resources:** \$360,000. \$360,000 for grants to communities, materials development, training support. \$100,000 to pilot test the 2004 HSP RFP Process for Safe Community Coalition projects and for Umbrella Safe Community Activity projects passed through existing Safe Community Coalitions.

**Self-sufficiency:** Empowered communities will know how to plan and to use data, and will thus request BOTS resources only for those priority needs that cannot be supported from local or other funds.

**Evaluation:** Administrative – description of coalition and its activities, and of the effectiveness of its traffic safety activities.

**B. STATEWIDE OUTREACH and COMMUNICATIONS**

**STRATEGY -- EDUCATION – Public Information & Education**

**Activity: 03-10-02-CO COMMUNICATIONS COORDINATOR/PROGRAM MANAGER.**

**Problem:** Need to coordinate media contacts, development of public relations campaigns, marketing of BOTS mission and resources, development of safety marketing strategies, management of meetings and conferences.

**Objective:** Write speeches, maintain communication about breaking issues, assist Program Managers with marketing campaign and materials development, produce/support BOTS outreach materials, organize Governor's Conference and other meetings, as required to:

1. Assist in the development of new marketing campaigns and educational materials.
2. Coordinate media contacts within WisDOT and provide speech writing assistance
3. Coordinate marketing of BOTS via appropriate media
4. Organize conferences, and meetings of Task Forces and other groups.
5. Assure evaluation built in to all PI&E efforts.

**Resources:** \$60,000 for 1.0 FTE, travel, training, DP, M&S

**Self-sufficiency:** None.

**Evaluation:** Administrative. PI&E Plan. Compare program objectives and planned activities with accomplishments and comment on reasons for success or lack thereof. Quarterly and final reviews and Annual report.



**Activity: 03-10-02-CP PI&E - GENERAL ( Community-Focused and Non-program-related Campaigns and Media Outreach )**

**Problem:** Informal surveys indicate general public is unaware of nature and extent of traffic safety problem, unaware of existence of BOTS and TSCs, and believe traffic "accidents" are normal part of living. Some traffic safety public relations efforts do not fit squarely within a Priority Program area. BOTS function as coordinator of state highway safety programs requires means of communicating changes in laws and programs, the latest information about a wide variety of topics. This requires timely, multi-media offerings

**Objective:**

1. Develop PI&E campaigns to continue crash reductions achieved in "Perform Death-Defying Acts" campaign.
2. Develop, duplicate and distribute non activity-specific print and AV materials.
3. Support BOTS displays at state and local fairs, professional, commercial and advocacy meetings.
4. Develop speakers' bureaus of volunteers and BOTS staff to perform outreach function.

**Resources:** \$50,000 for contracts for materials and newsletter development, programming, duplication, printing and distribution.

**Self-sufficiency:** BOTS web site and in-house maintenance, and development of volunteer speakers bureaus should decrease cost of outreach activities.

**Evaluation:** Baseline surveys of KAB, on-site surveys regarding nature and content of materials, post-surveys of KAB. B/C

**Activity: 03-10-02-CP TRAFFIC SAFETY REPORTER and OUTREACH**

**Problem:** Outreach to safety professionals and advocacy groups necessary to keep them informed and motivated to work locally and in state-level organizations on traffic safety issues.

**Objective:**

1. To produce, print and distribute six issues of the Traffic Safety Reporter.
2. To coordinate the development of the safety portion of the WisDOT Internet site.
3. To provide support services & maintain WHSP Web-site

**Resources** \$40,000 for wages, travel, DP, M&S, mailing.

**Self-sufficiency:** Maintain web site (20,000 hits per year) and maintain web site calendar of traffic safety events.

**Evaluation:** Conference evaluations only.

**STRATEGY -- EMPOWERMENT – Coordination**

**Activity: 03-10-03-CP GOVERNOR'S HIGHWAY SAFETY CONFERENCE**

**Problem:** Outreach to safety professionals and advocacy groups necessary to keep them informed and motivated to work locally and in state-level organizations on traffic safety issues.

**Objective:** To conduct one 2-day Governor's Conference on Highway Safety for 300 volunteers and safety professionals.

**Resources** \$25,000 for travel, subsistence, fees, M&S, contractual services.

**Self-sufficiency:** Attendees pay own registration fee and lodging costs

**Evaluation:** Conference evaluations only.

**Activity: 03-10-03-CP DIVERSITY CONFERENCE/ MEETINGS**

**Problem:** The 2000 census documents what was clear to safety professionals in Wisconsin; our population is becoming increasingly diverse and "one size fits all" strategies, messages, and approaches are no longer sufficient to address our highway safety problems. Some of our minority populations have extremely difficult problems: motor vehicle crashes are the leading cause of death for American Indians ages 1-44, and motor vehicle death rates are three times the US All-Races death rate. Wisconsin's Latino population is growing extremely fast and its culture is not well understood by the predominant culture. Motor vehicle deaths are especially high among American Indians ages 15-44. We must learn from our partners in the human services how to achieve our safety goals while being culturally appropriate and sensitive to the differences between diverse populations that will make them more or less resistant to desired behavior changes.

**Objective:** To conduct a conference or set of meetings exploring transportation injury issues in one or more of Wisconsin's minority communities engaging 200 attendees.

**Resources:** \$ 7,000 for fees, travel, M&S, postage

**Self-sufficiency:** This is a one-time event.

**Evaluation:** Pre/post KAB surveys of conference attendees.

**Activity: 03-10-03-CP STRATEGIC PLANNING**

**Problem:** WisDOT developed an agency Highway Safety Strategic Plan during 2001. Strategic Planning techniques can be useful in a variety of safety contexts.

**Objective:** To conduct a series of meetings to develop and prepare a Strategic Highway Safety Plan for the Bureau of Transportation Safety and to establish a sense of teamwork among and between BOTS and other DOT staff.

**Resources:** \$ 40,000 for fees, travel, M&S, postage.

**Self-sufficiency:** This is a one-time occurrence.

**Evaluation:** Pre/post KAB surveys of conference attendees.

## 03-12 LARGE TRUCK SAFETY

**Program Goal:** To decrease the number of fatalities and incapacitating injuries in crashes involving large trucks/ commercial vehicles to 517 by the end of 2003, and to 462 by the end of 2005, and resulting in a 50% reduction to 373 in 2008.

The Federal Highway Administration established a national goal of a 50-percent reduction in the number and rate of large truck fatalities by 2008. Using 1994 as Wisconsin's base year, achieving a 50 percent reduction in fatalities would require a decrease from 116 large truck fatalities in 1994 to 58 in 2008.

### FUNDS

LARGE TRUCK SAFETY 12						
Activity	Title	Fed	State	Local	Tot Prog	Loc Benefit
03-12-01	PI&E Youth	10,000	1,000	2,500	13,500	5,000
03-12-02	Crash Data Improvement	10,000	2,000	0	12,000	2,500
<b>402 TOTAL</b>	<b>(PT)</b>	40,000	3,000	2,500	25,200	7,500
MCSAP	Inspections & Enforcement	---				
	Public Education	---				
	Data System Improvements	---				
	Homeland Defense	---				
<b>MCSAP Total</b>		*4,000,000				
<b>TOTAL</b>	<b>ALL FUNDS</b>	*4,020,000				

\* estimated

--- has not yet been established

### PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

#### A. MAGNITUDE and SEVERITY of the LARGE TRUCK CRASH PROBLEM:

Wisconsin serves as a "bridge" state for the interstate traffic between Chicago and the Twin Cities of Minneapolis and St. Paul on Interstate Highways 90 and 94. Wisconsin also serves its own heavy intrastate and interstate industrial and agricultural transportation needs. Truck traffic has increased nearly 300 percent from 1970 to today, while passenger vehicle travel has grown only 125 percent.

Designating "Large Truck Safety" as a priority safety program area is complicated by the multiple overlapping jurisdictions with responsibility for oversight of commercial vehicle safety. The Highway Safety Plan will concern itself with "large trucks" as defined by Wisconsin traffic crash reporting.

"Large trucks" are defined for WisDOT Safety analysis by vehicle plate type as found in the state police crash report. As currently defined, they include heavy single unit trucks, single trailer trucks ("semi's") and double trailer trucks ("double bottoms").

The Motor Carrier Safety Assistance Program is concerned with Commercial Motor Vehicles. "Commercial Motor Vehicles" is a subset of the WisDOT definition of large trucks, with the addition of buses.

"Commercial Motor Vehicle" is defined for Commercial Driver License purposes in Sec. 383.5 of Title 49, C.F.R., Part 382. Gross weight of over 26,000 lbs., transports 16 or more passengers or transports hazardous materials. These include interstate and intrastate trucks and buses.

From 1970 to today, the national VMT fatality rate for large trucks decreased by 39 percent, but has remained flat for the past several years. In Wisconsin, large trucks represent about 10% of the total vehicle miles traveled (VMT) on rural highways and about 6% of the VMT on urban streets.

Large trucks are not disproportionately involved in traffic crashes relative to their share of total travel. They represent about 14% of the vehicles involved in fatal crashes and 7.7% of the vehicles involved in non-fatal crashes.

All crashes (including fatal, injury and PDO crashes) for large trucks show a 1999-2001 three-year average of 9,104, with an upward trend over the three years. Deaths in large truck crashes show only a 4% 3-year average decline since 1994.

A more useful performance measure is the total of those killed (K) or sustaining incapacitating (A) injuries in large truck crashes. In 1994, the total killed and incapacitated in large truck crashes was 746, and the 2008 goal of a 50 percent reduction would thus be 373 K+A. The three-year average for 1994-1996 was 682.3 K+A, and the three-year average for 1999-2001 was 577 K+A, a decrease of 15.3% from the 1994-1996 average. While the number of crashes is fluctuating but trending somewhat upward, the severity of injuries sustained has decreased significantly. However, the trend thus far established will not take us to 50% by 2008.

<b>Table 12-01: LARGE TRUCK CRASHES 1994-1996; 1998-2001</b>									
LARGE TRUCK CRASH WI	1994	1995	1996	1998	1999	2000	2001	94—96 3-yr av	99—01 3-yr av
Large Truck Crashes	9,935	9,878	9,483	8,841	9,146	9,658	8,505	9,765	9,104
Large Truck Fatalities	116	114	115	116	95	112	112	115	106
Large Truck Injuries	3,771	3,591	3,810	3,524	3,469	3,787	3,271	3,724	3,509
Large Truck A-Injuries	630	530	542	489	500	485	426	567	470
Total K + A	746	644	657	605	595	597	538	682	577

Source: WisDOT Crash Database

Commercial Vehicle crashes are a subset of the total large truck crash problem. They represent fewer than half of all large truck crashes. The following Table of NGA Truck/Bus data breaks out CMV crashes by type of CMV involved. Bus crashes represent about 15 percent of CMV crashes.

The NGA data indicate a higher incidence of truck crashes than bus crashes, with significant downward trends for Intrastate vehicles, but an upward trend for Interstate vehicle crashes.

<b>Table 12-02: Inter- and Intrastate Commercial Vehicles Involved in Crashes 1995-2001</b>								
Vehicle	Year						2001	1999-2001 Average
	1995	1996	1997	1998	1999	2000		
Interstate Truck	1,668	1,949	1,940	1,869	1,873	1,980	2,046	1,966
Interstate Bus	38	42	34	37	39	40	43	41
Intrastate Truck	1,347	1,528	1,437	1,259	1,302	1,245	1,242	1,263
Intrastate Bus	507	451	427	401	432	359	373	388
Total CMV Crashes	3,560	3,970	3,838	3,556	3,646	3,523	3,704	3,624

Source: WisDOT/State Patrol NGA crash data

## **B. RISK FACTORS for TRUCK CRASH INJURY:**

**Roadway environment:** Like all vehicle types, large truck crash involvement rates vary by travel environment. They are lowest on rural Interstate (87 per 100 million VMT); double that on urban Interstate (173) and rural non-Interstate (195); and highest on urban non-Interstate (383). By comparison, in 1997, the crash involvement rates for all other vehicles types combined were 180,211 and 587, respectively.

**Vehicle type:** Double-bottom truck-trailer combinations have the lowest total crash involvement rates of all large truck categories (20 per 1000 million VMT, compared to 173 for semi's and 300 for large single units). Only 9 double bottoms were involved in fatal crashes in Wisconsin during the 16 years from 1982-1997. Trucks of all types have a higher incidence of crashes than buses, and Intrastate buses a higher incidence than Interstate buses.

**Speed:** Contrary to popular belief, on Wisconsin's rural Interstate highways, large trucks do not set the pace. A 1991 study indicated that their median speed was 3 mph slower than the median speed for smaller vehicles and that only 1/3 of the trucks were exceeding the 65 mph speed limit compared to 605 of smaller vehicles. However, MCSAP program data indicate that speeding is by far the most common violation for commercial vehicles.

**Location:** The level of CMV activity varies throughout Wisconsin, and is echoed by MCSAP activity in the State Patrol Districts. This reflects differing levels of vehicle miles traveled by trucks and buses in the various districts. No data are available by county for 2001.

**Driver:** A significant disproportion of crash involvement with trucks is seen in the 16-20 year old age cohort. This echoes their disproportionate crash involvement in general and has been determined to be a result of a combination of social and vehicle handling inexperience and youthful risk-taking. These youthful drivers don't perceive the consequences of their actions and

don't know how to control themselves and their vehicles in emergencies. Wisconsin's new (2000) Graduated Driver License is intended to address these problems.

Alcohol: In 2000, large trucks that made up 9.5% of State VMT and represented 6.9% of all vehicles in crashes in Wisconsin, but those crashes accounted for more than 13% of the fatalities. (2000 Wisconsin Traffic Crash Facts.) Commercial Vehicle drivers are required to drive alcohol-free and are subject to a 0.04 AC for OWI. These levels are most difficult to detect during roadside stops or at scales unless there is direct conversation with the driver. In 2001, 5 MCSAP violations were for alcohol within 4 hours prior to duty.

### **Driver Behavior (truck driver, other vehicle driver)**

Crash data show that 4 Possible Contributing Circumstances (PCCs) are attributed by the reporting officer as contributing to more than 80% of large truck crashes. These data also show that the driver PCC is most commonly attributed to the driver of the vehicle other than the CMV. In 2001, for crashes in which large trucks were involved, Inattentive Driving was noted as a possible contributing factor in 25%, Failure to Yield Right of Way in 20%, Failure to Have Control in 19%, and Speed Too Fast for Conditions in 13%.

State Patrol data show that, during 2001, 6,772 MCSAP commercial vehicle inspections were reported as "traffic enforcement" inspections. Of these, only 4,302 (63.5%) listed a "traffic enforcement violation" on the report. Of the violations reported, speeding accounted for 76%, violations of local laws, 19% and Following Too Closely, 7.4%.

### **C. STRATEGIES FOR DECREASING DEATHS & INJURIES:**

The FHWA has sought increased funds from Congress for information systems, research and MCSAP grants, and is implementing tough TEA-21 penalties and doubling the number of compliance reviews. FHWA is also working with the states on better information systems, working with the industry on smarter vehicles (ITS) and advancing regulatory actions.

The Motor Carrier Safety Assistance Program (MCSAP): Wisconsin's Motor Carrier Safety Assistance Program (MCSAP) is administered by the Wisconsin State Patrol, a Division of the Department of Transportation. The MCSAP program has evolved from a basic inspection program in 1985 to a complex program of hazardous material inspections, motor coach inspections, carrier reviews, eligible traffic enforcement and size/weight activities, post-crash inspections, and educational outreach. The WI MCSAP program began "performance-based" programming in 1997, and began a "risk-based" approach in FFY2002. 49 CFR Part 350 is the controlling regulation for this program.

Motor Carrier Safety Assistance Plan The required "core elements" of the MCSAP plan are: Driver/Vehicle Inspections, Traffic Enforcement, Compliance Reviews, SafetyNet Data Systems and Public Education. The FFY 2003 estimated budget is expected to be in excess of \$4 million and will support one program manager, one Safetynet coordinator, one Consumer Protection Investigator (CPI) supervisor, six CPI's (to be hired by the end of FFY 2002) one CPI

general/MCSAP support staff, one sergeant (0.5FTE MCSAP duties) and one program analyst. In addition, MCSAP funds support one CDL auditor in the WisDOT Division of Motor Vehicles. Thirty-one FTE MCSAP-supported enforcement field positions are divided among approximately 170 enforcement officers throughout the state. Enforcement staff are distributed throughout seven State Patrol Districts, and the MCSAP job responsibilities are divided among them so as to permit MCSAP enforcement in smaller districts. When the six civilian investigators are hired to do compliance reviews, inspectors will have more time to conduct inspections and other MCSAP activities. With other funds, Wisconsin supports 17 truck scale sites and 2 pull-off sites where inspections can take place.

All MCSAP Plan crash data is NGA data from the MV4000 crash Truck/Bus supplement sent by all investigating agencies to WisDOT and maintained by the Wisconsin State Patrol. These data are supplemented with data from inspections, compliance reviews and HazMat data.

#### D. CRITERIA FOR PROJECT SELECTION

The Wisconsin State Patrol is responsible for managing the MCSAP program and assigns criteria for the expenditure of these funds. 402-funded activities are selected using nature and severity of crashes, local citation and conviction activity, local level of commercial vehicle trained officers, and past history of effective use of highway safety funds.

## PROGRAM OBJECTIVES

**Objective 1: To reduce crashes involving large trucks to 8,926 and resulting deaths and incapacitating injuries to 540 by the end of FFY 2005.**

Performance Measure: The number of crashes in which at least one of the vehicles was identified by the reporting officer as a "large truck," by license plate type, and the number of deaths (K) and incapacitating (A) injuries sustained in those crashes.

*NOTE: This measure has been changed to reflect data available in the WisDOT Crash database because access to data from the Truck/Bus Supplemental is too limited to be useful.*

Baseline: In CY1994, 9,935 crashes involved a large truck and these resulted in 116 deaths and 630 incapacitating injuries. The 1994-1996 three-year average number of large truck crashes was 9,765 resulting in an average of 116 deaths and 567 A injuries.

Status: In CY2001, 8,508 crashes involved a CMV, resulting in 112 deaths and 426 incapacitating injuries. The 1998-2000 three-year average was 9,215 crashes involving a large truck, resulting in an average of 108 deaths and 491 A injuries.

*The following objectives and performance measures are from a draft of the FFY2003 MCSAP Plan:*

**Objective 2: (MCSAP) To reduce crashes involving large vehicles through alternative educational methods.**

Performance Measure: Greater distribution of Commercial Vehicle "Share the Road" information.

**Objective 3: Continuously improve the quality of inspection and enforcement activities to promote highway safety.**

Performance Measures: Maintain number of inspections at FFY2002 level, i.e. 34,642.

Perform 50 percent Level 1 inspections at fixed facilities.

Perform 300 motor coach inspections.

Every inspection recorded as "Traffic Enforcement" lists a violation

An active effective civilian Compliance Review program is operating.

A uniform, centralized DMV post-crash inspection database is programmed.

A system is in place for mailing letters requesting delinquent repair affidavits.

Status: In FFY2002, 34,642 inspections were recorded.

**Objective 4: Meet the FMCSA guidelines for data uploads.**

Performance Measure: Inspections are uploaded within 21 days, compliance reviews within 7 days and crash reports within 90 days.

Status: In 2002, uploads took 173 days for inspections, 12 days for compliance reviews and 109 days for crashes.

**Objective 5: Improve national security through greater safety awareness.**

Performance Measures: Provide general specialized training in terrorism and security measures

Provide level VI Enhanced Radioactive Inspection Training.

Participate in two national strike forces.

Produce a readily available avenue to report suspicious activities to FMCSA and FBI.

Increase the number of HazMat inspections.



## TABLE of STRATEGIES & ACTIVITIES

### STRATEGY: EDUCATION– Public Information & Education

#### Activity: 03-12-01-PS PI&E -LARGE TRUCKS

**Problem:** 70% or more of crashes involving a large truck or bus are reportedly caused by the driver of the other vehicle. Because of the sheer size of commercial vehicles, there are unique pieces of information that the driver of the auto should know to avoid being involved in a CMV crash. Because WI driver education programs have limited information on maneuvering around large vehicles, the State Patrol in partnership with the Wisconsin Motor Carrier's Association developed a "Share the Road" program to present to schools throughout the State. Youthful drivers are disproportionately involved in these crashes.

**Objective:** 1. To contribute funds and expertise to the development of a "Share the Road" interactive CD which can be used, especially for youthful drivers, as part of driving skills development in this high-risk group.

**Resources:** \$10,000 for contractual services for development of an alternative plan to educate the public.

**Self-sufficiency:** Contributions from the trucking industry.

**Evaluation:** PI&E standard evaluation: determine size and nature of audience reached, and effectiveness of materials in changing knowledge, attitudes and/or behaviors.

### STRATEGY: EVALUATION – Data Improvements

#### Activity: 02-05-03-TR DATA SYSTEM IMPROVEMENTS (See TRAFFIC RECORDS PROGRAM)

**Problem:** NGA Truck/Bus data elements are collected by WI law enforcement officers, but these data are not entered into the WI crash database located in DMV/TAS. Instead, the hard copies are provided to the State Patrol to be entered into a separate db2 database. At this time, the persons creating standard crash reports do not have access to the names of the tables and files necessary to extract the NGA data. As a result, no summary reports have been generated. Meetings have been held and work is underway to select the data elements and contents of a standard report.

**Objective:** To develop management procedures for NGA truck/bus data in WisDOT files  
To develop meaningful reports from the data that can be used by a wide variety of end-users  
To correlated these data with truck/bus information in the WisDOT crash database  
To publish a multi-year report of these data, bringing them up to date, and to prepare a separate large truck facts report.

**Resources:** \$10,000 for LTE research analyst, DP, M&S, printing

**Self-sufficiency:** Will be on-going portion of WI traffic records program.

**Evaluation:** Administrative.

HS217  
(Rev. 7/93)

"217PLAN"

**Highway Safety Program Cost Summary**

State: WISCONSIN  
FFY: 2003

Number: PLAN  
Highway Safety Plan

Date: August, 2002

Program Area	Apprvd Program Costs	Basis for % Change	State/Local Funds	Federally Funded Programs				Federal Share to Local
				Previous Bal	Incre/(Decre)	% Chng	Current Bal	
PA	558,000.00	225,000.00	333,000.00	0.00	225,000.00	0%	225,000.00	56,250.00
OP	1,330,000.00	745,000.00	585,000.00	0.00	745,000.00	0%	745,000.00	312,500.00
AL	1,017,500.00	750,000.00	267,500.00	0.00	750,000.00	0%	750,000.00	630,000.00
PT	982,500.00	620,000.00	362,500.00	0.00	620,000.00	0%	620,000.00	458,750.00
TR	338,000.00	295,000.00	43,000.00	0.00	295,000.00	0%	295,000.00	73,750.00
EM	365,000.00	205,000.00	160,000.00	0.00	205,000.00	0%	205,000.00	111,250.00
MC	773,000.00	120,000.00	653,000.00	0.00	120,000.00	0%	120,000.00	49,000.00
RS	78,000.00	27,500.00	50,500.00	0.00	27,500.00	0%	27,500.00	21,250.00
PS	1,073,000.00	392,000.00	681,000.00	0.00	392,000.00	0%	392,000.00	252,500.00
CP	1,690,000.00	1,140,000.00	550,000.00	0.00	1,140,000.00	0%	1,140,000.00	673,500.00
PT	35,000.00	20,000.00	15,000.00	0.00	20,000.00	0%	20,000.00	7,500.00
Total 402	8,240,000.00	4,539,500.00	3,700,500.00	0.00	4,539,500.00	0.00	4,539,500.00	2,646,250.00
157-OP	111,000.00	241,000.00	66,000.00	0.00	111,000.00	0%	111,000.00	43,000.00
2003(b)-J3	332,500.00	200,000.00	132,500.00	0.00	200,000.00	0%	200,000.00	125,000.00
02-IN2	2,200,000.00	1,800,000.00	400,000.00	0.00	1,800,000.00	0%	1,800,000.00	800,000.00
410-J8	2,188,240.00	966,000.00	1,222,240.00	0.00	966,000.00	0%	966,000.00	628,500.00
411-J9	393,000.00	180,000.00	213,000.00	0.00	180,000.00	0%	180,000.00	44,750.00
164-AL	1,160,000.00	508,000.00	652,000.00	0.00	508,000.00	0%	508,000.00	433,000.00
164-HE	10,000.00	10,000.00	0.00	0.00	10,000.00	0%	10,000.00	10,000.00
ALL FUNDS	14,634,740.00	8,444,500.00	6,386,240.00	0.00	8,314,500.00	0.00	8,314,500.00	4,730,500.00

State Officials Authorized Signature:

Federal Official(s) Authorized Signature:

NAME\_\_\_\_\_

NHTSA - NAME\_\_\_\_\_

FHWA - NAME\_\_\_\_\_

TITLE\_\_\_\_\_

TITLE\_\_\_\_\_

TITLE\_\_\_\_\_

DATE\_\_\_\_\_

DATE\_\_\_\_\_

DATE\_\_\_\_\_

Effective Date\_\_\_\_\_